

# Northumbria Research Link

Citation: Roosli, Ruhizal (2010) Managing disasters in Malaysia : the attitude of officials towards compliance with the MNSC Directive 20. Doctoral thesis, Northumbria University.

This version was downloaded from Northumbria Research Link:  
<http://nrl.northumbria.ac.uk/id/eprint/2925/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>



**Northumbria  
University**  
NEWCASTLE



**UniversityLibrary**

**MANAGING DISASTERS IN  
MALAYSIA:  
THE ATTITUDE OF OFFICIALS  
TOWARDS COMPLIANCE WITH  
THE MNSC DIRECTIVE 20**

**RUHIZAL ROOSLI**

**PhD**

**2010**

**MANAGING DISASTERS IN  
MALAYSIA:  
THE ATTITUDE OF OFFICIALS  
TOWARDS COMPLIANCE WITH  
THE MNSC DIRECTIVE 20**

**RUHIZAL ROOSLI**

A thesis submitted in partial fulfilment  
of the requirements of the  
University of Northumbria at Newcastle  
for the degree of  
Doctor of Philosophy

Research undertaken in the  
School of Applied Sciences

June 2010

## **Abstract**

This research focused on pre and post-disaster planning in Malaysia since the adoption of the Hyogo Framework for Action (HFA) 2005–2015 and national Vision 2020. A review of the existing research and practice in Malaysia including the structure and attitude of government officers at central and local authorities to risk was the starting point. The regulatory compliance to the Malaysia National Security Council MNSC Directive 20 programme is a key focus. The MNSC Directive 20 exists as the important core of disaster regulation in Malaysia but the implementation is not according to plan and regulatory compliance was low. Failures in regulation and compliance were identified as the key vulnerability and disaster causes in Malaysia. The beneficiaries were actually unaware of non-compliance that exposed them to hazard. In general, the more developed Asian economies, of which Malaysia is one, have not devoted much attention to pre-disaster planning despite a rapidly growing capital stock of buildings including public and private housing. Although the Asian Development Bank has provided templates for pre-disaster planning, the uptake has been slow. This Malaysian case study is an important example, not just for the country but the region. The aim of this research is to highlight shortfalls in provision, training and awareness, and to recommend ways of improvement. Gathered actors' perspectives in the implementation of regulatory compliance in all level of emergency management system in Malaysia helps to explain the reason of regulatory compliance failures. Measuring their attitudes towards regulatory compliance reveals actual commitment because regulatory compliance would require making changes to existing barriers in the administrative environment. These changes would have to be based, to a large extent, on how actors' perceived and judged the benefits of regulatory compliance implementation. The research uses both quantitative and qualitative methods together that involved 484 respondents. They have broadly negative general attitudes towards regulatory compliance, arguing that currently too many barriers are present in department levels to make regulatory compliance implementation straightforward. They need informative advice and guidance to enable them to see the very probable societal benefits that can lead towards regulatory compliance development. The research concludes by categorising obstacles that need to be overcome, to encourage actors to accept regulatory compliance and recommends changes to department structures, systems and practices prior to regulatory compliance implementation.

## **Acknowledgement**

Many people were involved and contributed in this PhD thesis. Firstly, I would like to thank my principal supervisor Prof. Phil O’Keefe (Professor of economic development and environmental management at Northumbria University, UK) for his invaluable guidance, encouragement and support throughout this enduring PhD study process (leads me to gain 2007 Young Researcher Grant from ProVention Consortium and 2009 Northumbria University International Student Award). I would also like to thank my second supervisor, Lewis Preston (professional architect and senior lecturer at Northumbria University, UK) for his advice at all times.

I would like to express my gratitude and appreciation to all actors (chairmen, managers, clerical staff members, technical staff members, officers and staff members from the special body appointed by the government) for their cooperation in collecting data for this research especially Mohd. Zahari Md. Zakaria from the Prime Minister’s Department, Malaysia.

I would like to thank all the people who were involved in giving opinions especially those who reviewed my Thesis. They are Dr. Geoff O’Brien (scientist in emergency management at Northumbria University, UK), Mr. Muamar Vebry (post-disaster and reconstruction consultant from Aceh, Indonesia), and Dr. Rahmat Azam Mustafa (planning and development consultant and a senior lecturer in housing studies, Universiti Sains Malaysia).

I would like to convey my gratitude to Professor Ir. Mahyuddin Ramli (Dean, School of Housing, Building and Planning, Universiti Sains Malaysia), the Universiti Sains Malaysia and the Ministry of Higher Education, Malaysia for giving me opportunity to expand my carrier in education. Financial support also came from the ProVention Consortium that assisted me particularly while data collection process due to distance and size of the sample.

I would also like to thank Northumbria University and Disaster and Development Centre family of colleagues for supported this work and to the Asian Disaster Preparedness Centre (ADPC), Bangkok for research writing guidance. Last but not least, for my wife, daughter, parents (as foremost motivation) and friends for their constant support and encouragement in helping me to complete this piece of research work sooner than I expected.

### **Declaration**

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. All other sources of information used, have been acknowledged.

Name: Ruhizal Roosli

Signature: .....

Date:.....

## **Contents**

List of Appendices .....	viii
List of Tables .....	ix
List of Boxes.....	xii
List of Diagrams .....	xii
List of Figures.....	xiii
References .....	xiii
Acronyms .....	xiv

## **CHAPTER 1**

### **Introduction to the Thesis**

Introduction to the Thesis.....	1
---------------------------------	---

## **CHAPTER 2**

### **Disaster Management**

2.1 Introduction.....	10
2.2 Disaster Studies and Planning.....	15
2.3 Research in Disaster Planning .....	19
2.4 Disaster Planning Principles .....	22
2.4.1 Linking Disaster Risk to Community Resilience.....	24
2.4.2 Mitigation and Preparedness in Disaster Planning.....	26
2.5 Roles of Government.....	31
2.5.1 Government Measures in Disaster Phases.....	31
2.5.2 Government Dilemma .....	34
2.6 Learning from Imperfections of Disaster Planning.....	36
2.7 New Emergency Management Model.....	39
2.8 Potential Risk of Post Disaster Recovery.....	42
2.9 Conclusion .....	46

## **CHAPTER 3**

### **Compliance and Enforcement**

3.1 Introduction.....	48
3.2 Regulatory Compliance .....	49
3.3 Research in Regulatory Compliance .....	53
3.4 Compliance Assessment to International Standards .....	55
3.5 Enforcement of Disaster Planning Framework.....	56
3.5.1 Policy Implementation and Challenges .....	58
3.5.2 Relief Co-Ordination.....	60
3.5.3 Dilemma in Assistance to Post Disaster Housing .....	62
3.6 International Legal Context in Shelter/Housing Sector .....	72
3.6.1 The Human Rights Violation in Disaster Scene .....	75
3.6.2 The Human Rights Violation to Adequate Housing .....	76
3.7 Community Participations .....	78
3.7.1 The ‘Grootboom’ and the Rights to Adequate Housing.....	81
3.8 Behaviours of Government Institution in Disaster Planning.....	83
3.8.1 Officers’ Attitudes in Disaster Planning.....	86
3.9 Conclusion .....	90

## **CHAPTER 4**

### **Malaysia Context**

4.1 Introduction.....	92
4.2 Quality of Public Service Administration .....	94
4.2.1 Framework of National’s Public Service Sector.....	95
4.3 Malaysia and Asia .....	97
4.3.1 Action Plan .....	98
4.4 Malaysia Experience .....	101
4.5 Evolution of Disaster Planning in Malaysia .....	103
4.5.1 The MNSC Directive 20.....	107
4.5.2 Compliance with the MNSC Directive 20.....	114
4.6 National Housing Rights Legislations.....	117
4.7 Emergency Housing in Malaysia .....	119



4.7.1 Emergency Housing in other Developing Countries.....	122
4.8 Lesson Learned from Disaster Cases in Housing .....	124
4.9 Conclusion .....	129

## **CHAPTER 5**

### **Research Methods**

5.1 Introduction.....	131
5.2 Statement of the Problem .....	131
5.3 Objective of the Study.....	132
5.4 Originality/Value .....	133
5.5 Assumptions.....	133
5.6 The Importance of the Study .....	134
5.7 Contributions .....	135
5.8 Limitation .....	136
5.9 Regulated Population to Justify Biographical Data .....	136
5.10 Research Approach .....	138
5.10.1 General Culture-Related .....	139
5.10.2 Social Structure-Related .....	140
5.10.3 Law-Related.....	141
5.10.4 Regulatory Tradition-Related .....	141
5.10.5 Regulatory Work-Related .....	142
5.11 Relevance of the Three-Component Model.....	143
5.12 Research Aims .....	145
5.13 Core-Hypothesis.....	145
5.13.1 Hypothesised Attitude Domains .....	145
5.14 Specific Research Questions for the Interviews .....	146
5.15 Conclusion and Methodological Caveats .....	147

**CHAPTER 6**  
**Research Methodology**

6.1 Research Design.....	148
6.2 The Relationship between Qualitative and Quantitative Method in This Study .....	149
6.2.1 Connection between Quantitative (Survey) and Qualitative (Semi-Structured).....	149
6.2.2 Strategy in Combining Both Methods in This Study .....	150
6.3 Questionnaire and Interviews .....	153
6.4 Quantitative Method: The Survey .....	155
6.4.1 Sampling .....	155
6.4.2 Survey Respondents .....	156
6.4.3 Instrument for the Questionnaires .....	158
6.4.4 Questionnaire Designs.....	160
6.4.5 Factors Related to Actors Attitudes .....	160
6.4.6 Term Used for Item Construction .....	164
6.4.7 Background Characteristics of Actors.....	165
6.4.8 Data Analysis .....	166
6.4.9 Analysis .....	169
6.5 Qualitative Method.....	172
6.5.1 Biographical Data: Interviews .....	173
6.5.2 Interview Sampling .....	174
6.5.3 Instrument for the Interview .....	177
6.5.4 Themes for Qualitative Data Analysis .....	178
6.5.5 Interview .....	179
6.5.6 Data Collection Process.....	182
6.5.7 Qualitative Data Analysis .....	183
6.6 Research Strategies .....	185
6.7 Approaches to Verification and Standards of Quality .....	192
6.8 Research Credibility .....	193
6.9 Reliability and Validity of the Qualitative and Quantitative Research.....	194
6.9.1 Instrument Reliability.....	194
6.9.2 Instrument Validity.....	196

## CHAPTER 7

### Quantitative Analysis

7.1 Introduction.....	198
7.2 Actors' Cognitive Component of Attitudes to Regulatory Compliance .....	199
7.2.1 Influence of Actors' Professional Status on the Dependent Variable of Knowledge (K1) and Perceived Ability (K2) .....	199
7.2.2 Relationship between Perceived Knowledge of Regulatory Compliance (K1) and Perceived Ability to Apply Regulatory Compliance (K2) .....	201
7.3 Actors' Affective Component of Attitudes to Regulatory Compliance .....	202
7.3.1 Influence of Actors' Professional Status on the Dependent Variables F1 and F2 .....	202
7.3.2 Relationship between Actors' Perceived Benefit of Disaster Victims' Development When Included in the Decision Making (F1) and Actors' Perceived Suitability of the Current MNSC Directive 20 (F2) .....	203
7.4 Actors' Conative Component of Attitudes to Regulatory Compliance.....	204
7.4.1 Influence of Item 31 and 32: Actors' Support of the MNSC Directive 20 towards the Emergency Housing Regulatory Compliance .....	204
7.4.2 Influence of Item no 33: The Willingness of Actors to Develop Skills towards the Regulatory Compliance .....	206
7.4.3 Conditions for Accepting Regulatory Compliance .....	207
7.5 General Attitudes of Actors towards Regulatory Compliance Implementation .....	208
7.5.1 Influence of Actors' Background Characteristics (independent variables) on General Attitudes to Regulatory Compliance .....	209
7.6 Relationship between Actors' Three Components of Attitudes (cognitive, affective and conative) towards Regulatory Compliance .....	211
7.7 Relationship between Actors' Perceived Knowledge to Apply (K1) to the Affective Component of Attitudes (section B) and Willingness to Support the Implementation of Regulatory Compliance (item 31).....	212
7.8 Open-Ended Items.....	212
7.8.1 Item 40: Views on the MNSC Directive 20 towards Regulatory Compliance in Emergency Housing .....	213
7.8.2 Item 41: Changes need to be made at the Department Level before Regulatory Compliance Implementation .....	217
7.9 Conclusion .....	220

## CHAPTER 8

### Qualitative Analysis

8.1 Introduction.....	227
8.2 Cognitive Component of Attitudes to Regulatory Compliance.....	228
8.2.1 Actors Perceived Knowledge of the Regulatory Compliance under the Prime Minister's Department's MNSC Directive 20.....	228
8.2.2 Actors' Understanding of Regulatory Compliance in Malaysia.....	231
8.2.3 Perceived Knowledge of Actors by the Term Emergency Housing .....	231
8.2.4 Department Level's Discussions on Regulatory Compliance .....	232
8.2.5 Actors Perceived Rationale of the Prime Minister's Department's Plan .....	238
8.2.6 Perceived Abilities of Actors towards Regulatory Compliance under the MNSC Directive 20 .....	239
8.3 Affective Component of Attitudes.....	243
8.3.1 Perceived Rights of Disaster Victims under the MNSC Directive 20 to Regulatory Compliance.....	244
8.3.2 Perceived Benefit of Regulatory Compliance to Disaster Victims under the MNSC Directive 20 .....	246
8.3.3 Perceived Suitability of Regulations for Actors and Disaster Victims under the MNSC Directive 20 .....	251
8.3.4 Perceived Effect of Regulatory Compliance on Actors' Workload.....	252
8.3.5 Perceived Effect of Regulatory Compliance on Victim.....	254
8.3.6 Perceived Effect of Regulatory Compliance on Department Levels' Performance .....	256
8.3.7 Types of Regulations Favoured by Actors for Regulatory Compliance .....	259
8.4 Conative Component of Attitude .....	262
8.4.1 Perceived Actors Support for Regulatory Compliance Implementation.....	262
8.4.2 Perceived Ability of Regulatory Compliance on Promoting a 'Caring Feeling' and Acceptance of Disaster Victims under the MNSC Directive 20 by the Actors.....	264
8.4.3 Perceived Willingness of Actors to Attend In-Service Training in Emergency Housing .....	266
8.4.4 Actor Perceptions of the Conditions to Accept Regulatory Compliance.....	267
8.4.5 Barriers towards the Implementation of Regulatory Compliance .....	268
8.4.6 Changes Suggested by Actors Prior to Regulatory Compliance Implementation in Disaster Department Levels .....	269

8.4.7 Strategies to Encourage Actors to Accept Regulatory Compliance under the MNSC Directive 20.....	271
8.5 Conclusion .....	273

## **CHAPTER 9**

### **Discussion and Conclusion**

9.1 Introduction.....	276
9.1.1 Actors' Attitudes to Regulatory Compliance.....	276
9.1.2 Actors' Understanding of Regulatory Compliance.....	286
9.1.3 Actors' Perceived Rationale of Full Regulatory Compliance .....	287
9.2 Variables Influencing Actors' General Attitudes to Regulatory Compliance .....	289
9.3 Final Conclusion .....	293

## **CHAPTER 10**

### **Recommendations**

10.1 Introduction.....	299
10.2 Recommendations .....	299
10.2.1 Changes to Support Regulatory Compliance Recommended by Knoster (1991).....	300
10.3 Possible Implication for Change .....	305
10.4 Transferable Lesson .....	306
10.5 Dissemination .....	307
10.5.1 Next Steps as Part of Dissemination .....	307
10.6 Conclusion .....	308

## **List of Appendices**

Appendix 1: Hyogo Framework of Action Summary, 2005–2015 .....	310
Appendix 2: The MNSC Directive 20 Cover Page.....	311
Appendix 3: Basic Terminology in this Thesis .....	312
Appendix 4: Summary, Questions and Answer about this Thesis.....	316
Appendix 5: Author’s Published Articles and Forthcoming Publications related to this Thesis .....	334
Appendix 6: Comparing Reconstruction Pace Across Countries .....	338
Appendix 7: Regulatory Framework.....	339
Appendix 8: Post-Disaster Reconstruction Theories .....	340
Appendix 9: Summary of Malaysia Housing Policy .....	341
Appendix 10: Case Studies of Reconstruction Projects.....	343
Appendix 11: Comparison between Quantitative and Qualitative .....	344
Appendix 12: Survey Questionnaire .....	346
Appendix 13: Rationale of the Questionnaires (Dependent Variables) .....	350
Appendix 14: Codes Used in Analysing Open-Ended Item 40 (Survey Questionnaire) .....	351
Appendix 15: Codes Used in Analysing Open-Ended Item 41(Changes Recommended) of the Survey Questionnaire .....	352
Appendix 16: Interview Questionnaire .....	353
Appendix 17: Rational of the Interview Questions .....	356
Appendix 18: Codes Used to Analyse Interviews .....	357
Appendix 19: Consent Letter by the Respondents.....	364
Appendix 20: Letter to the Respondents.....	365
Appendix 21: Details Answers to the Broad Questions (Sub-divided into Specific Research Questions).....	366
Appendix 22: Details of Quantitative Analysis .....	370
Appendix 23: Translated Quotation of the Interviews.....	392
Appendix 24: Summarises Response.....	426
Appendix 25: Typical Qualitative Analysis (National and State level).....	435

## **List of tables**

Table 2.1: Social Categories and Properties of Errors .....	38
Table 2.2: Success Factors in Emergency Management .....	40
Table 3.1: Guidelines in Disaster Response .....	64
Table 3.2: Handbook Review .....	70
Table 3.3: The Institutional Environment for Property Analysis .....	83
Table 4.1: Membership of Every Committee in Disaster Mechanism.....	111
Table 6.1: Survey Respondent (Q1 to Q39) .....	156
Table 6.2: Actors Responded to the Survey .....	157
Table 6.3: Matrix Used as Item Content Guide for the Attitude Scale of the Survey Questionnaire .....	162
Table 6.4: Numbers of Items in the Attitudinal Scale According to Section.....	163
Table 6.5: Positive and Negative Worded Items in the Survey Questionnaire .....	165
Table 6.6: Background Characteristics of Actors.....	166
Table 6.7: Sub-Scale of the Attitudinal Scales of the Survey Questionnaire.....	168
Table 6.8: Number of Actors and their Professional Status who responded to Item 40 .....	171
Table 6.9: Number of Actors and Professional Status who responded to Item 41 .....	172
Table 6.10: Interview Respondents.....	175
Table 6.11: Actors Interviewed (Qualitative).....	176
Table 6.12: Themes for Qualitative Data Analysis.....	179
Table 6.13: Reliability Coefficient of Q1 to Q39 .....	195
Table 7.1: CMS, Frequency and Percentage Score for K1 .....	200
Table 7.2: CMS, Frequency and Percentage Scores for K2.....	201
Table 7.3: Inter-Relationship Between K1 and K2.....	201
Table 7.4: CMS, Frequency and Percentage Scores for F 1.....	202
Table 7.5: CMS, Frequency and Percentage Scores for F2.....	203
Table 7.6: Inter-Relationship between F1 and F2.....	204
Table 7.7: CMS, Frequency and Percentage Scores for Item 31 .....	205
Table 7.8: CMS, Frequency and Percentage Scores for Item 32.....	205
Table 7.9: CMS, Frequency and Percentage Scores for item 33 .....	206
Table 7.10: CMS, Frequency and Percentage Scores for the 6 Conditions for Accepting Regulatory Compliance by Actors.....	207

Table 7.11: CMC, Frequency and Percentage Scores for Actors' General Attitudes and Three Components of Attitude to Regulatory Compliance.....	209
Table 7.12: CMS, Frequency and Percentage Scores for Actors' General Attitudes and Background Characteristic .....	210
Table 7.13: Inter-Relationship between Cognitive, Affective and Conative Components of Attitudes .....	211
Table 7.14: Inter-Relationship between K2, Affective and Q31 .....	212
Table 7.15: Frequency for the Three Categories of Responses for Item 40 Based on Professional Statuses.....	213
Table 7.16: Actors' Reasons for Disagreeing with the Regulatory Compliance.....	214
Table 7.17: The 'if' Cited by Actors who were Undecided with the Plan to Implement Regulatory Compliance .....	215
Table 7.18: The 'but' Cited by Actors Who Undecided with the Plan to Implement Regulatory Compliance .....	216
Table 7.19: Reasons Cited by Actors Who Agreed with the Plan to Implement Regulatory Compliance.....	217
Table 7.20: Frequency of Changes or Actions Recommended by Actors Prior to Regulatory Compliance Implementation .....	218
Table 7.21: CMS, Frequency and Percentage Scores of General Cognitive Component of Attitude to Regulatory Compliance of Actors' Background Characteristics .....	370
Table 7.22: CMS, Frequency, Percentage Scores for K1.....	372
Table 7.23: CMS, Frequency, Percentage Scores for K2.....	373
Table 7.24: CMS, Frequency and Percentage Scores for K1 .....	373
Table 7.25: CMS, Frequency and Percentage Scores for K2 .....	374
Table 7.26: CMS, Frequency and Percentage Scores for Q5.....	374
Table 7.27: CMS, Frequency and Percentage Scores of General Affective Cognitive Component of Attitude to Regulatory Compliance Actors' Background Characteristics .....	375
Table 7.28: CMS, Frequency, Percentage Scores for F1 .....	377
Table 7.29: CMS, Frequency, Percentage Scores for F2 .....	377
Table 7.30: CMS, Frequency and Percentage Scores for F1.....	378
Table 7.31: CMS, Frequency and Percentage Scores for F2.....	378
Table 7.32: CMS, Frequency and Percentage Scores for Item 10.....	379
Table 7.33: CMS, Frequency and Percentage Scores for Item 13.....	380
Table 7.34: CMS, Frequency and Percentage Scores for Item 11 .....	380



Table 7.35: CMS, Frequency and Percentage Scores for Item 12 .....	381
Table 7.36: CMS, Frequency and Percentage Scores for Item 29 .....	381
Table 7.37: CMS, Frequency and Percentage Scores for Item 30 .....	382
Table 7.38: CMS, Frequency and Percentage Scores for item 14 .....	382
Table 7.39: CMS, Frequency and Percentage Scores for Item 15 .....	383
Table 7.40: CMS, Frequency and Percentage Scores for Item 16 .....	384
Table 7.41: CMS, Frequency and Percentage Scores for Item 17 .....	384
Table 7.42: CMS, Frequency and Percentage Scores for Item 23 .....	385
Table 7.43: CMS, Frequency and Percentage Scores for Item 24 .....	385
Table 7.44: CMS, Frequency and Percentage Scores for Item 25 .....	386
Table 7.45: CMS, Frequency and Percentage Scores for Item 22 .....	386
Table 7.46: CMS, Frequency and Percentage Scores for Item 26 .....	387
Table 7.47: CMS, Frequency and Percentage Scores for Item 27 .....	387
Table 7.48: CMS, Frequency and Percentage Scores for Item 28 .....	388
Table 7.49: CMS, Frequency and Percentage Scores of General Conative Component of Attitude to Regulatory Compliance of Actors' Background Characteristics .....	389
Table 7.50: CMS, Frequency, Percentage Scores for Q31 .....	390
Table 7.51: CMS, Frequency, Percentage Scores for Q33 .....	391
Table 8.1: Document on the Prime Minister Department of Regulatory Compliance under the MNSC Directive 20 .....	426
Table 8.2: Actors Acceptance to the MNSC Directive 20 Implementation .....	426
Table 8.3: Actors Description of Regulatory Compliance .....	426
Table 8.4: Actors Description of Emergency Housing .....	427
Table 8.5: Definition of Disaster Victims under the MNSC Directive 20 in the Malaysian Context .....	427
Table 8.6: Discussion of Regulatory Compliance .....	427
Table 8.7: Actors' Knowledge of their Department Level's of Disaster Victims' Involvement under the MNSC Directive 20 .....	428
Table 8.8: Actors Perceived Rationale of the Prime Minister Department Plan .....	428
Table 8.9: Actors' Ability towards Regulatory Compliance .....	428
Table 8.10: Rights of Disaster Victims under the MNSC Directive 20 to Regulatory Compliance .....	429
Table 8.11: Disaster victims Knowledge Gained of Regulatory Compliance .....	429

Table 8.12: Disaster Victim Development of Social Skills of Regulatory Compliance.....	429
Table 8.13: Disaster Victims Emotional Development.....	429
Table 8.14: Suitability of Regulations for Actors and Disaster Victims under the MNSC Directive 20 .....	430
Table 8.15: Effect of Regulatory Compliance on Disaster Victims' Adaptation.....	430
Table 8.16: Effects on Department Levels' Performance .....	430
Table 8.17: Regulations Most Favoured for Regulatory Compliance .....	430
Table 8.18: Actors Willingness to Support Regulatory Compliance.....	431
Table 8.19: Ability of Regulatory Compliance to Produce 'Caring Feeling' and Acceptance .....	431
Table 8.20: Actors Willingness to Attend In-Service Training.....	431
Table 8.21: Conditions for Accepting Regulatory Compliance as Perceived by Actors.....	431
Table 8.22: Barriers towards Regulatory Compliance Implementation.....	432
Table 8.23: Changes Suggested Prior to Regulatory Compliance Implementation .....	433
Table 8.24: Strategies Recommended to Encouraging Acceptance of Regulatory Compliance by Actors.....	434

### **List of Boxes**

Box 3.1: Enforcement Pyramid .....	51
Box 6.1: Range of Response to Item Statement .....	164
Box 6.2: The Reverse Scoring for Negative Items of Attitudinal Section.....	167
Box 6.3: Divisions of CMS .....	168

### **List of Diagrams**

Diagram 3.1: From transitional Settlement to Housing Reconstruction, Shelter Centre.....	68
Diagram 4.1: Malaysia Disaster Management Programme.....	106
Diagram 4.2: Disaster Management Mechanism of Malaysia .....	109
Diagram 4.3: Land Development Process in Malaysia.....	119
Diagram 6.1: Instrument Framework.....	152

## **List of Figures**

Fig. 4.1: Temporary Longhouses and Typical Floor Plans .....	120
Fig. 4.2: Rumah Mesra Rakyat Programme (RMR) Housing and the Loan Repayment Scheme .....	121

## **References**

References .....	447
------------------	-----

## Acronyms

### International

ADRC	Asian Disaster Reduction Centre
ALNAP	Active Learning Network for Accountability and Performance in
APEC	Asia-Pacific Economic Community
ASEAN	Association of South East Asian Nations
COHRE	Centre on Housing Rights and Evictions
DAC	Development Assistance Committee
DEAP	Disaster and Emergency Assistance Policy
DEC	Disaster Evaluation Committee
DERC	Disaster and Emergency Reference Centre
DMC	Disaster Management Centre
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ERCM	Emergency Response and Crisis Management
ERD	Evaluative Reports Database (of ALNAP)
ERP	Emergency Response Plan
EU	European Union (a partnership of 27 democratic countries in the Europe)
EWS	Early Warning Systems
FEMA	Federal Emergency Management Agency, US
GESI	Global Earthquake Initiative
GFDRR	Global Facility for Disaster Reduction and Recovery
GHI	GeoHazards International
GSS	Global Shelter Strategy
HAP-I	Humanitarian Accountability Partnership - International
HDI	Human Development Index
HIC	Humanitarian Information Centres
HPG	Humanitarian Policy Group
IASC	Inter-Agency Standing Committee
ICRC	International Committee of the Red Cross
IDNDR	United Nations International Decade for Natural Disaster Reduction
IDPs	Internally displaced persons

IEWP	International Early Warning Programme
IFRC	International Federation of Red Cross and Red Crescent Societies
ILS	International Legal Systems
INGO	International Non Governmental Organisation
IO	International Organisation
ISDR	International Strategy for Disaster Reduction
LSU	Logistics Support Unit (of OCHA)
NGO	Non Governmental Organisation
OCHA	Office for the Coordination of Humanitarian Affairs
ODI	Overseas Development Institute
OFDA	Office of US Foreign Disaster Assistance (of USAID)
OHCHR	Office of the High Commissioner for Human Rights
OHS	Occupational Health and Safety
SAARC	South Asian Association for Regional Cooperation
SAME	Shelter Assessment, Monitoring and Evaluation tool
TEC	Tsunami Evaluation Coalition
UK	United Kingdom
UN	United Nations
UN/OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNCRD	United Nations Centre for Regional Development
UNDP	United Nations Development Programme
UNDRO	Office of the UN Disaster Relief Co-Ordinator (now OCHA)
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WDR	World Disaster Report

#### Malaysia

ATM	Malaysian Armed Forces
BKN	National Security Division
CCC	Contingent Control Centre

CDM	Crisis and Disaster Management Unit
CIDB	Construction Industry Development Board
DCC	District Control Centre
DOR	Defence Operation Room
JBPM	Malaysian Fire and Rescue Department
JPBBD	District Disaster Management and Relief Committee
JPBBN	State Disaster Management and Relief Committee
JPBBP	Central Disaster Management and Relief Committee
JKR	Public Works Department
JPM	Prime Minister Department
LPTA	Atomic Energy Licensing Board
MCC	Malaysia Control Centre
MKN	National Security Council
MNSC	Malaysia National Security Committee
NDMRC	National Disaster Management and Relief Committee
NIPA	National Institute of Public Administration
NPM	New Public Management
NRS	New Remuneration System
NSD	National Security Division
PBSM	Malaysia Red Crescent Society
PCB	Public Complaints Bureau
PDRM	Royal Malaysia Police
PKOB	Disaster Operation Controlling Centre
PKTK	Control Post on Scene
PPA	Public Personnel Administration
PSD	Public Services Department
PTO	Operation Standing Rules
RELA	Malaysian People Voluntary Alliance
SMART	Special Malaysia Disaster Assistance and Rescue Team
STC	Staff Training Centre
STMB	Malaysia National Telecommunications Agency
TNB	Malaysia Electrical Power Agency

## CHAPTER 1

### Introduction to the Thesis

“Government has a continuing role in ‘protecting people from risks they cannot handle themselves’-managing risk is ‘increasingly central to the business of government’, and that it is incumbent upon government bodies to earn back trust through greater openness and transparency”.

(Burgess, 2009: 6)

I volunteered to work in post-disaster recovery when the Tsunami struck Malaysia at the end of the year 2004. The Tsunami with a huge volume of moving seawater destroys buildings, trees, wildlife and people (Foong *et al.* 2006). In this and other activities, I was able to make observations on disaster sites and I concluded that there was much scope to improve both planning practice and training for those in the front line of disaster management. As I explored these issues further, I was aware that, although sufficient regulation existed, regulatory compliance was low. I wished to explore why there was a gap between regulation and performance.

According to Foong *et al.* (2006) Tsunami victims in Kota Kuala Muda, Malaysia have shown a high level of satisfaction with the provision of temporary longhouses provided by the government because they were provided with the minimum 3 bedrooms to separate different gender and age groups; and there were also shared community space, storage and prayer room. 3 bedrooms’ is the minimum requirement stipulated in the 1986 Malaysia Uniform Building by Law (UBBL) for habitable bedroom. Amenities were in some cases better than previous dwellings. The beneficiaries were actually unaware of non-compliance that exposed them to hazard. A legal non-complying building is any building that was legal when it was built that no longer complies with one or more of the present regulations (Barakat, 2003). I saw many examples of non-compliance such as the bedroom size not according to specification; partition walls built of combustible instead of non-combustible materials; no parking and open spaces as required; improper insulation and painting; and no front porch as a safety zone between the main entrance of the houses and

the access road. The failure of the Malaysian Government to exercise the proper conduct of post-disaster provision has slowed the process of restoring livelihoods.

The Malaysian government should give extra attention to housing provision. Providing emergency shelter is one of the most important emergency activities because of safety, land use and ownership issues (Quarantelli, 1995a). This research indirectly explores theme issues in disaster management such as the dangerous location of buildings, improper construction, cultural attitudes about development and political preference (Quarantelli *et al.* 1977). However, compliance occurs when business goals and political interest are enhanced (Parker, 1999). Thus, I hope to highlight shortfalls in provision, training and awareness and to recommend improvements in implementing disaster policy in Malaysia. This thesis' emphasis on disaster management policy is a result of the essential nature of compliance requirements in housing provision policy.

The handling and resolving of disasters in Malaysia is currently conducted through the committee system that includes inter-agency and inter-sectoral approaches such as local authorities<sup>1</sup>, Public Works Department and a Social Welfare Department known as the 'National Disaster Management and Relief Committee' (NDMRC), that function as the national coordination mechanism for the management of disaster activities as stated in the MNSC Directive 20 (see section 4.5.1, p.107, p.3). DMRC will establish a Disaster Operation Control Centre (DOCC) for monitoring the progress and development of these efforts and to ensure that disaster management is effectively and smoothly implemented without compromising compliance with the national and international legislations (NSC, 1997).

According to the MNSC Directive 20, the important core of disaster regulation in Malaysia, authorities involved in disaster response are obligated to follow rules and regulations (e.g. Uniform Building Bylaws, Town and Country Planning Act and Road Transport Act) in providing housing to the disaster victims. The Malaysia National Security Council (MNSC) Directive No. 20 states the mechanism on the management of natural and technological disasters including the responsibilities and functions of the various agencies under an integrated emergency management system (Moin, 2007). Unfortunately, temporary housing built after the Tsunami did not fully comply with these rules and regulations.

---

<sup>1</sup> The terms 'officials', 'authorities' and 'officers' are used interchangeably but refer to the same meaning.



Malaysia has a policy of disaster management called the 'Policy and Mechanism on National Disaster and Relief Management'. This framework contains directives that relate to disasters and relief management, such as Directive 18 for the relief and management of disasters that result from terrorist action, Directive 19 for establishing a special unit called Special Malaysia Disaster Assistance and Rescue Team (SMART) and Directive 20 for relief and management of natural and technological disasters. The policy statement for disaster relief operations in Directive 20 was purposely put in place to mitigate the effects of various hazards; to prepare for measures that will preserve life and minimise damage to the environment; to respond during emergencies and provide assistance; and to establish a recovery system to ensure the affected community's return to normalcy.

The Malaysia National Security Council (MNSC) Directive 20 clearly stated guidelines on the management of disasters including the responsibilities and functions of various agencies within the scope of national and international legislation (Shaluf *et al.* 2006). The MNSC Directive 20 is one part of this policy framework and outlines the actions on land management according to the level and complexity of the disaster. It establishes management mechanisms for determining the roles and responsibilities of agencies at three levels namely the national, state and district levels (Moin, 2007b). Quite simply MNSC Directive 20 is the standard operational procedure (SOP) for all departments involved in disaster management.

This policy framework was developed from international and national requirements such as Hyogo Framework of Action (HFA) (as shown in Appendix 1, p.310); Yokohama Strategy (guidelines for natural disaster prevention, preparedness and mitigation); Habitat Agenda (a practical roadmap for an urbanising world, setting out approaches and strategies towards the achievement of sustainable development of the world's urban areas); other ISDR strategies (a system of partnerships for disaster risk reduction strategies which consist of international, regional and national agencies); and national rules and regulations. However, Malaysia is still in the phase of restructuring and reorganising the National Disaster Management Mechanism to fit in the HFA, by taking actions such as monitoring disaster risks, building a safety culture at all private and public levels and strengthening disaster preparedness in order to ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.

The policy document however is not available for public scrutiny (restricted as shown in Appendix 2, p.311) for reasons of national security. Most of the information only exists in the form of internal department communications. Even then, documents were circulated for office use only. Any training sessions for officers is based on self volunteering. Training is only mandatory for specific groups or individuals with certain technical skills (e.g. building inspectors, project managers and Special Malaysia Disaster Assistance and Rescue Team). Only top government officers were called by the National Institute of Public Administration (NIPA) and compelled by the Chief Secretary to the Government to attend courses on crisis management after a post mortem revealed the poor handling of development projects (Aini *et al.* 2001). One consequence is that those involved in disaster response received very little information about implementation and I saw that some of them did not really know what they were meant to do. The decay of policy effectiveness, from central government to the districts, parallels the small number of professionals who know what to do and the majority who do not.

There were initial efforts to implement full regulatory compliance after the 2004 Tsunami in Malaysia. I judged that implementation was not very successful because I thought that regulatory compliance would require making changes to existing barriers in the administrative environment. These changes would have to be based, to a large extent, on how actors' perceived and judged the benefits of regulatory compliance implementation. Local experience in Malaysia, suggested by recent academic work indicated that neither public office workers' attitudes nor private managers followed regulatory compliance with the MNSC Directive 20 (Aini *et al.* 2006). I wished to explore government officers,' or authorities, attitudes to regulation and compliance, in order to understand how better compliance could improve emergency housing in Malaysia.

The literature reviewed in Chapters 2, p.10; Chapter 3, p.48 and Chapter 4, p.92 has three themes namely, Disaster Management; Compliance and Enforcement; and Malaysia Context. There is lack of recent information available on the opinions and attitudes of actors in regulatory compliance and emergency housing (Dynes, 1993). Much past research has focused on levels of compliance and quotes organisational response rather than understanding individual attitudes towards regulatory control (Aini *et al.* 2006). Available literatures suggest that non-compliance occurs (Dynes, 1993). Davis (2007) argued that disaster response has become highly politicised and does not comply with guidelines

provided by international organisations like SPHERE and Oxfam. Then, Quarantelli (1984) identified disaster planning not as a tangible product, but rather as ‘a process’ (see section 2.4, p.22, p.3). As a result, disaster itself is a failure of the social system (Dynes, 1993) and any development activities during a disaster can be seriously damaging (Allen, 1990) because communities themselves give very low priority to disaster planning and actions.

Thus, in Chapter 3 Hutter (2001) and Meidenger (1987) suggested that research on regulation should focus on organisational routines, the attitudes and values of bureaucrats that shape governmental action and the role of culture in institutions. Enforcement and compliance are measured with reference to such factors as commitment to regulatory objectives and attitudes to compliance that increase effectiveness (Hutter, 2001). The nature of the institution and behaviour of authority is significant for compliance in emergency management programmes (Braithwaite, 2002). Research in building a better foundation for understanding behaviour is a necessary step before trying to improve public policy implementation (Cohen *et al.* 2000). Individual behaviour in a particular setting is affected by an individual’s initial emotional or normative state and then by direct experience with others in a specific setting (Cox, 2004). Attitudes depend much on what people do together to respond in an organised fashion to disaster and on the continuities between pre and post-disaster of social organisations (Aguirre, 1995).

In Chapter 4, in Malaysia, I found regulatory failure contributed to how the public service itself behaves. Aini *et al.* (2007) found that regulatory and organisational failure has contributed to greater vulnerability in disaster situations. I could read all of this in the literature, but it posed another question for me. Malaysia is neither a developed nor a developing country; it is somewhere in between. In effect Malaysia has developed world regulation with developing world implementation. How could implementation be improved through changing public officials’ behaviour?, An informed public can be a major ally in any attempt, because awareness can lead to action, including pressure on legislators and other policymakers (Anderson *et al.* 1998).

The questions I wished to ask and to whom are defined in Chapter 5, p.131. This Chapter is developed further from the notion of regulatory culture explained earlier in Chapter 3. The issue of culture remains unclear not least because culture is a complex construction of organisations, consisting of attitudes, perceptions, values and belief. There are five sources of regulatory culture with significant influences in regulatory compliance

(Meidinger, 1987). These are general culture, social structure, law, regulatory tradition and regulatory work. Nurturing a compliance culture requires an organisation to value compliance goals (Braithwaite, 2002). There is a need to understand behaviour to build a better foundation for public policy (Cohen *et al.* 2000). Individual attitudes will determine what the person will hear, think and do about the compliance issue (Allport, 1973). Franzoi (1996) argued that attitudes consist of three components (cognitive, affective and conative) (see section 3.8.1, p.86); a division I have deployed in my research design. The aim of this thesis is to highlight shortfalls in provision, training and awareness and to recommend ways of improvement. The aims were achieved by trying to answer the following broad questions about the concept of regulatory compliance as currently understood in Malaysia:

1. What are Malaysian actors' attitudes towards regulatory compliance implementation?
2. What do Malaysian actors understand by regulatory compliance?
3. What are the actors' own perceived rationales behind regulatory compliance implementation?

The thesis uses both quantitative and qualitative methods together (thoroughly discussed in Chapter 6, p.148; Chapter 7, p.198; and Chapter 8, p.227). The central premise (Golden, 2000) in this research is that participation of government officers in the MNSC Directive 20 is essential. They are the managers, clerical staff members, technical staff members and general officers at department level of national, state and district levels. Local government is perhaps best positioned to implement mitigation as they control many of the most effective tools to reduce vulnerability to hazards, such as land use regulation and building code enforcement (Prater, 2000).

The key quantitative and the key qualitative findings (Chapter 9, p.276) are:

1. Malaysia is unique and different from other developing countries because Malaysian has to consider cultural and religious matters (e.g. minimum 3 rooms in providing shelter and separate worship place).
2. Actors had broadly negative attitudes towards regulatory implementation. These negative general attitudes were attributed to their negative thinking towards the level of knowledge and understanding (see section 9.1.2, p.286 and section 9.1.3, p.287) regarding MNSC Directive 20.

3. They know very little about the MNSC Directive 20. This lack of knowledge about regulatory compliance is due to lack of information about the programme given to department at national, state or district level.
4. Generally, actors felt they did not have the required skills to comply with the programme.
5. The majority of actors interviewed agreed that victims have the right to regulatory compliance due to equal rights and socialisation opportunities.
6. Actors in Malaysia appear to see the process of regulatory compliance from the point of view of the existing public service system.
7. Actors are aware of the many barriers and uncertainties. Actors wish to see changes (see section 10.2, p.299) at the department levels before regulatory compliance is implemented.
8. Both methods of quantitative and qualitative proposed that more effort should be done to promote the importance of knowledge towards MNSC Directive 20 because of actors' lack of information.

These findings necessarily have direct relevance for further development in Malaysia because actors are actually willing to support the implementation if they are provided with enough support in terms of resources, training, exposure and incentives. The actors are knowledgeable about the scope of their own work, but not about the information regarding MNSC Directive 20.

The contents of MNSC Directive 20 are suitable and practical to implement at the department level; however actors and victims revealed that the policy delivery system is not yet effective enough. And it needs to be considered that actors could not reasonably be accused for having this negative attitude. They need to be convinced that the efforts required for regulatory compliance will produce benefits for both actors and victims. They need informative advice and guidance to enable them to see the very probable societal benefits that can lead towards regulatory compliance development. Actors might be persuaded to accept regulatory compliance, but it cannot simply be expected that they will accept the programme without any changes made to the present department settings or as regard to the status of their working conditions. There is no doubt that actors would expect to triumph over barriers with additional input in the form of increased resources and extra

support, especially in the form of working assistants. In terms of originality, no one has questioned the public sector over compliance and more importantly no one has done so with disaster management in Malaysia.

Presently, Malaysia is still in the phase of restructuring and reorganising the National Disaster Management Mechanism to fit in the HFA and ISDR Programme (Shaluf *et al.* 2006). Hence, I recommended (Chapter 10, p.299) that these research outcomes can be used by the decision makers, authorities and NGOs to develop strategies and actions that include awareness raising and capacity building for enhancing enforcement of current legislation. The findings of this research might give insights into designing and planning the national policy and disaster management framework by restructuring and reorganising the present National Disaster Management Mechanism in terms of enhancing the coordination of responsibility between and within government bodies in the National Disaster Management Mechanism.

The decision making circle in Malaysia starts with a social learning process. In every project delivered by the authorities, there will be a project report and evaluation. Input from academic research and consultation is a must in revising and formulating new policies such as the National Structural, Physical and Local Plan and other related works in Malaysia. Policy makers should account for, and measure, what matters especially in assessing the needs of victims, while being realistic about any evaluation. 'Needs' are not interpreted solely in terms of economic interests, but are taken to be the necessities of a fully functional, harmonious, global system that incorporates both people and ecosystems (Earth Summit, 1992). Therefore, policy makers should consider who policy is for from central government to local delivery agents; and from professionals and service delivery to communities and service users. Support also may come from a good community leadership with good personalities and other local condition such as their own skills, dedication and experience. In addition, full regulatory compliance, as a sign of significant progress, may take a long time to consider. Hopefully the policy makers will be patient and persist in delivering humanitarian work and policy making.

For the future Malaysian direction, Malaysia is serious about the vision for 2020 (Sarji, 1996), to become an industrialised and developed country if it can maintain 7 per cent annual economic growth (EPU, 2006). The direction is for public service reform with a clear emphasis on the development of a 'clean, efficient and effective' administration. To

be considered as up to world class standard, Malaysians must have a strict code of working ethics for implementing regulatory compliance. This culture will then shape the behaviour of its members. The success of the organisation itself is best achieved by ongoing compliance with regulatory goals (Brooks, 1988).

## CHAPTER 2

### Disaster Management

“People want to know how others act under such extreme situations, using disaster as a test for bringing out what is normally hidden-the best and the worst in people, the abilities normal life does not tap, and the dark motives we all repress. As we read about disaster, in safety and comfort, we vicariously test ourselves and our society-How would I have behaved, how would my community has behaved”?

(Barton, 1969: 43)

#### 2.1 Introduction

Disaster research is based on disaster planning rather than the outputs (Wisner *et al.* 2002). Dynes *et al.* (1978) describe disaster research as a ‘social pathology’ that brings about disruptions in normal life. The complexities of various relationships within a disaster environment usually fail to diminish the vulnerability of populations with the probability of disasters in the future. The dynamics of disaster research subsequently expose the real scenario of rehabilitation or reconstruction<sup>2</sup> activities following a disaster. It is still ambiguous to what concern much in officials’ responsibilities, whether in daily routine or humanitarian mechanism, due to the process of regulatory compliance per se, regulatory aims, or situational based on the theory of the good regulatory practice.

In the context of emergency management, the concept of sustainable hazard mitigation refers to creating places that are less vulnerable to natural and technological hazards and that are resilient to those events (Mileti *et al.* 1990). “Sustainable hazard mitigation consists of five elements: environmental quality; quality of life; disaster resilience; economic vitality; and inter and intra-generational equity” (Ronan *et al.* 2006: 91). From this perspective, public risk management schemes go hand-in-hand with the communities in order to reduce hazards risk, disaster loss reduction and efforts in sustainable communities’ development. Disaster mitigation and risk reduction are seen as

---

<sup>2</sup> The terms ‘rehabilitation’ and ‘reconstruction’ were adopted from Corsellis, T. and Vitale, A. (2005) *Transitional Settlement Displaced Populations* [Online] Available at: [www.shelterproject.org](http://www.shelterproject.org) (Accessed: 1 February 2007).



core elements of community resilience because, in general, any emergency management is the continuous process by which all individuals, groups and communities manage hazards in an effort to avoid or improve the impact of disasters resulting from the hazards.

Haddow *et al.* (2004) argued that the process of dealing with and avoiding risks is actually explaining a disaster management scenario. This scenario applies particularly to communities facing the threat of natural or human-made disasters such as floods, earthquakes, wind storms and industrial accidents. Disasters tend to happen to people at risk. They are at risk because they are vulnerable to hazards. This vulnerability can best be reduced by increasing people's capacity to deal with a range of social, cultural, economic and physical factors. Therefore, disaster management is a process of preparation before the occurrence of a disaster (e.g. emergency evacuation, quarantine and mass removal of contaminants) (Quarantelli, 1980). Disaster management is aimed at developing preventive ways, management platforms and collision reduction in disasters that encompass a series of policies and practices that go hand in hand. It can be separated into four groups that consist of “preparedness (prevention and recovery planning), response (actions before and during a hazard), recovery (actions taken after a hazard) and mitigation (continuous actions)” (Godschalk, 1991: 142).

In the past, public policy, with regard to disaster management, has been heavily centered around responses based on the assumption that natural disasters were almost inevitable as they represented an ‘act of God<sup>3</sup>’ (natural event which is not preventable by any human agency) (Smith, 1996). However, over the years, this perspective has been put to rest by disaster researchers such as Quarantelli (1980) and Dynes (1978), who now define disasters as a social phenomenon, in which the emphasis comes to be on internal rather than external factors. In this perspective, disaster is not an outside force that impacts upon a social system, but a manifestation of internal flaws and weaknesses in the society. This manifestation is the result of interactions between hazard-triggering elements distributed by nature, as well as from human activity and vulnerabilities (Alexander, 1997) where vulnerability is commonly evolved to a physical, social, economic and cultural loss (Paton, 2001). Variables that widely contribute to mitigation efforts include structural measures to control a hazard, land use management, building regulation enforcement to minimum standard and warning systems (Paton, 2001).

---

<sup>3</sup> Religious and philosophical belief systems that a supreme being created and overseer of the universe adapted from Swinburne, R. (2004) *The Existence of God*, Oxford University Press, New York.

In the international community, emergency management is the subject of defense strategy. In most cases, emergency management is an instrument of international cooperation, where liberty remains a political agenda. The term emergency management was largely replaced by civil defense after the Cold War. Cold War refers to the relationship that developed primarily between the USA and the USSR (with influence from the Cuban Missile Crisis, Vietnam, Hungary, the Berlin Wall and others) after World War Two due to the growth in weapons of mass destruction. As a drawback, the original intention of civil defense was limited to protecting civilians from military attack. Over the years, it has been transformed into describing an emergency situation. The term emergency management is predominantly popular at the scene of a disaster.

Meanwhile, disaster management involves the entire process of a disaster circle (i.e. mitigation, preparedness, response and recovery) because disaster management must also consider long term protection to civilians. Within European Union countries the term ‘crisis management’ emphasises the political and security dimension rather than measures to satisfy the immediate needs of the civilian population (Norman *et al.* 2003). In particular, academics are much more comfortable using the term ‘disaster risk reduction’, especially in a development context (Alexander, 2002). They focus more on the mitigation and preparedness aspects of an emergency cycle.

The international community shows more concern over mitigation rather than response and recovery in action. This idea was unanimously agreed to and adopted as a resolution by delegates to ‘Yokohama Strategy’ at the ‘1994 United Nations World Conference on Natural Disaster Reduction’, and which stated:

“The impact of natural disasters in terms of human and economic losses has risen in recent years, and society in general has become more vulnerable to natural disasters. Disaster response alone is not sufficient, as it yields only temporarily results with further exposure to hazards at a very high cost. We have followed this limited approach for too long. Prevention contributes to lasting improvement in safety and is essential to integrated disaster management”.

(UNISDR, 1994: Chapter 1)

These objectives were repeated continuously and expanded at the ‘2005 United Nations World Conference on Disaster Reduction’ at the Hyogo Declaration (HFA) from 18 to 22 January 2005, this stated that:

“We, delegates to the World Conference on Disaster Reduction, are deeply concerned that communities continue to experience excessive losses of precious human lives and valuable property as well as serious injuries and major displacements due to various disasters worldwide. We recognise as well that a culture of disaster prevention and resilience, and associated pre-disaster strategies, that are sound investments, must be fostered at all levels, ranging from the individual to the international levels. We affirm that the state has the primary responsibility to protect people and property on their territory from hazards, and thus, it is vital to give high priority to disaster risk reduction in national policy, consistent with their capacities and resources available to them”.

(UNISDR, 2005: 2)

As a result, in many countries a specific government body is created for the purposes of coordinating and directing rehabilitation and reconstruction after disasters. This specific government body is responsible to providing all hazards mitigation, preparedness/planning, response, recovery and reconstruction services; continuity of operations, continuity of government and emergency operations planning; risk management and mitigation; and training and exercise design services to local, state and federal government agencies nationwide (Wisner *et al.* 2002). Wisner *et al.* (2002) also argued that this body not only formulates a complete framework but also has to make sure the plan works throughout the whole cycle of disaster management (i.e. warning, preparedness, prevention and mitigation, recovery, ongoing relief and emergency response). It is essential to ensure close liaison between the body responsible for recovery and that concerned with disaster management (e.g. hazard assessment, preparedness, warning, relief and housing reconstruction). Decisions taken in the course of recovery (e.g. the decision to build housing by using traditional methods) could themselves create serious secondary hazards (Tsunami or fires from earthquake) and expose affected victims to potential risks that occur due to the occurrence of another (primary) hazard.

Reconstruction of infrastructure and housing are two of the primary challenges in recovery efforts because a main indicator to measure the outcome of risk reduction indicators is the percentage of houses constructed according to building codes with appropriate hazard-resistant features (Christoplos, 2006). On average, studies<sup>4</sup> on post-disaster development are restricted to housing rehabilitation, policies and technical issues and practical implementation (Svetlana, 1998). Comerio (1996) argued that housing was the largest project section accounting for over 50 per cent of the entire project budget in recovery planning after disasters (A comparison of reconstruction pace across countries is shown in Appendix 6, p.338). Housing policies that decide the direction in providing housing in pre-disaster situations have a direct influence in conceptualising post-disaster shelter and housing programmes (Svetlana, 1998).

Hence, perception of potential risk to the victims and even non-compliance with policies would guide officials in this government body into taking appropriate actions (Wisner, 2004). Officials in this government body must possess sufficient knowledge of handling emergency situations, humanitarian works and community works at the scene of a disaster (Baldwin *et al.* 1998; Gunningham *et al.* 1999b). Activities at each level (individual, group, community) are affecting the other levels. Still, the scene of a one-sided response or the government response is a norm in disaster management since the matter of security control is a prime responsibility of the government. Authorities elected are perhaps best positioned to implement any disaster planning measure as they control many of the most effective of legislation. Therefore, efficient emergency management relies on officials' integrity from the influence of emergency plans.

As argued by Davis (2007), officials' integrity and professionalism are expected to ensure high standards of execution because behaviours associated with 'integrity' include honesty, sincerity, truthfulness, punctuality, ethics, fairness and justice while professionalism is characterised by expertise, generalised and systematic knowledge, a high degree of self control and governance by a code of ethics. The strength of a local government and its decision-making entities is conditional, in large part, upon the strength of its legal infrastructure. This legal infrastructure comprises laws that regulate the behaviour of employees and officials in government while promoting accountability, transparency and high ethical standards through enforcement and compliance (Davis,

---

<sup>4</sup> The terms 'studies' and 'research' are used interchangeably but refer to the same meaning.

2007). Enforcement and compliance are measured with reference to such factors as commitment to regulatory objectives and attitudes to compliance toward effectiveness (Hutter, 2001).

The nature of the institution and behaviour of authority is significant for compliance with disaster management programmes (Braithwaite, 2002). Research in building a better foundation for understanding behaviour is a necessary step before trying to improve public policy implementation (Cohen *et al.* 2000). Understanding behavior of these actors will fill the gaps in knowledge which is shaping the culture of compliance in authorities in disaster management mechanism.

## **2.2 Disaster Studies and Planning**

Samuel Prince's doctoral dissertation in 1920, in which he investigated the response to the 1917 Halifax shipping explosion, has had an enormous impact on disaster research (Scanlon, 1988; Scanlon *et al.* 2001). Samuel Prince makes a comparison between the Halifax incident and other cases that have occurred in the past. This revolutionary investigation was the beginning of other such subsequent collective behavioural research of organisational response to a range of disaster scenarios. However, it was only in 1942 that the first theoretical research was done by Pitirim Sorokin in 'Man and Society in Calamity'. Such studies were done in greater depth only after 1950s. Sorokin found a promising direction for resolving crisis' in a calamity situation by developing Integral (knowledge and values) culture into personal and collective action in social organisation (Ford *et al.* 1996). Classical notions were contributed by:

1. Fritz in 1961 (restorative community: a collaborative effort with a mission to build the capacity and sustainability of organisations, initiatives and networks);
2. Thompson *et al.* in 1962 (artificial community: accidentally come together for short time); Thompson *et al.* in 1962 (mass assault: a violent onset or attack on a community by physical means);
3. Barton in 1969 (unselfish community: deliberate pursuit of the interests or welfare of others or the public interest);
4. Taylor *et al.* in 1970 (the utopian community: an ideal community or society);
5. Parr in 1970 (emergence: the act of emerging a disaster response structure);

6. Bardo in 1978 (emergent behaviour: communities operate in an environment, forming more complex behaviours as a collective).

In 1963, the development of theories in organisational behaviour was more focused after the creation of the Ohio State University Disaster Research Center (DRC). Factual reports in disaster situations were gathered in terms of groups' structures and responsibilities; and developed a dynamic typology within organisations (Quarantelli, 1966; Dynes, 1970). 1988 was flagged as the year of vigorous growths in sociological research by DRC researchers (Britton, 1988). Scholars since then relied on DRC research outputs and theories in conducting research in relation to organisational behaviour in disaster scenes (Stallings, 1978; Forrest, 1978; Smith, 1978).

Mileti *et al.* (1975) summarised the events in a disaster life cycle into four phases termed as response, recovery, preparedness and mitigation. As the matter progressed further, Drabek (1986) expanded the circle of disaster more significantly in terms of human system responses locally and internationally. Responses from human system reflect the studies of emergency management and disaster situations. Drabek provided a 'Drabek's disaster encyclopedia' as a result of varied impact assessment (Dynes, 1999; Briton, 1999; Scanlon, 1999; Wilson, 1999). However, there is a lack of an up to date literature review especially towards the issue of emergent phenomena and multi-organisational cooperation in the scene of disaster responses (Drabek, 1987).

Only after World War II in 1945, did the World unite under the United Nations Organisation or the UN as an international organisation in order to facilitate cooperation in international law, international security, economic development, social progress, human rights and the achievement of world peace. Later, there were serious efforts made, by international treaties, to deal with the inherent uncertainty associated with climate change and hazard events such as:

1. Meetings at Talloires, France in October 1990 (declaration of environmental commitment more than 100 universities presidents from all continents);
2. Halifax, Canada in December 1991 (specific challenge of environmentally sustainable development);

3. The Kyoto Protocol by the United Nations Framework Convention on Climate Change (UNFCCC) in Rio de Janeiro in 1992 (Agenda 21)<sup>5</sup> (Earth Summit, 1992);
4. Swansea, Wales, in August 1993 (conclusion of the Association of Commonwealth Universities after the insufficient University presence at Rio de Janeiro);
5. 1997 five years of progress appraisal on the implementation of Agenda 21 (Rio +5);
6. The Johannesburg Plan of Implementation, agreed at the World Summit on Sustainable Development (Earth Summit, 2002) affirmed UN commitment to 'full implementation' of Agenda 21 are all about the concern in the unsustainable environmental practices and aimed at combating global warming.

A number of gaps were identified in the 1997 Rio + 5 in New York, particularly with regard to social equity and poverty. This was largely reflected by falling levels of official development assistance (ODA) and growing international debt, along with failures to improve: technology transfer; capacity building for participation and development; institutional co-ordination; and reduce excessive levels of production and consumption (Earth Summit, 2002).

The concern is also mounting in hazard events (disaster). In 1976 in Vancouver, the United Nations held its first conference on the issue of physical and spatial organisation of human life and on the national and international actions that needed to accommodate the growing population in urban and rural communities (UN-Habitat, 2002). However, between the 80s and 90s, pre-disaster housing policy then was based on framework establishment (e.g. community participation, housing finance and capacity building). The year 1987 was declared as the 'International Year of Shelter for the Homeless' (IYSH) in order to implement strategic shelter strategies. Subsequently, 'Global Shelter Strategy' (GSS) for the year 2000 was published in the year 1988 in order to rectify any flaws in the earlier version of strategies.

The final version is extensively articulated in the 'Habitat II Agenda' in Istanbul, 1996 (UN-Habitat, 1996). The Local Agenda 21 Planning Guide, the Habitat II action plan (Section IV C-11 sustainable human settlements development in an urbanising world: disaster prevention, mitigation and preparedness; and post-disaster rehabilitation

---

<sup>5</sup> The 40 chapters of the Agenda 21, the international plan of action to sustainable development that outlines key policies for achieving sustainable development that meets the needs of the poor and recognises the limits of development to meet global needs (Earth Summit, 1992).

capabilities) are based on Agenda 21 that focuses on the quality of being capable physically or intellectually or legally (Wisner *et al.* 2004). Strategies outlined in these declarations endorsed an agreement towards decentralisation of the government, local authorities assuming a stronger major role in the disaster scene and in cooperative work ethics. The solutions were aimed at ensuring adequate shelter, safer and healthier; and more liveable, equitable, sustainable and productive environments (UN-Habitat, 2001b).

Although the conference to review and appraisal of the implementation of the Habitat Agenda (the 2001 Istanbul +5) did produce some promising results, there was cause for disappointment when several delegations (e.g. G77 countries<sup>6</sup>) did not accept it (Habitat Agenda) when faced with policy planning decisions and the adoption of concrete measures especially the issue of the local autonomy of municipalities (administrative entity in any territory) and participatory civil society (UN-Habitat, 2003).

The Agenda 21 is a programme run by the United Nations (UN) related to sustainable development and was revealed at the United Nations Conference on Environment and Development (Earth Summit), held in Rio de Janeiro on 14 June 1992 (UN-Habitat, 2003). It is a comprehensive outline of action to be taken globally, nationally and locally by organisations of the UN, governments and major groups in every area that humans' impact on the environment alongside achievement of the Millennium Development Goals (MDGs) (to promote poverty reduction, education, maternal health, gender equality, and aim at combating child mortality, AIDS and other diseases). One of the significant objectives included in 'Agenda 21' is in 'promoting human settlement, planning and management in disaster prone areas' (UN-Habitat, 1996). It is proceeding (i.e. all are focused in one way or other on issues of the environment, poverty mitigation and sustainability) towards a diversification of approach in placing housing and settlement as an economic and social asset (UN-OCHA, 2006). Lack of adequate shelter was one of the issues addressed in the MDGs.

However, progress has been far from uniform across the world or across the Goals per se. There are huge differences across and within countries that agreed to achieve it by the year 2015 that include 192 United Nations member states and at least 23 international organisations. The World Conference on Disaster Reduction was organised in Kobe, Japan in 2005 and had identified priorities in implementing disaster risk reduction and had been

---

<sup>6</sup> G77 is a loose coalition of developing nations. There were 77 founding members of the organisation, but the organisation has since expanded to 130 member countries (UN-Habitat, 1996).



adopted by the member states of the United Nations (UNISDR, 2005). The Hyogo Framework assists the efforts of nations and communities to become more resilient to hazards that threaten their development efforts especially in implementing international legal instruments such as the Sphere Project Handbook, Oxfam Guidelines and UNHCR Guidelines. All strategies (e.g. Agenda 21, the Millennium Development Goals and HFA) set benchmarks for the practice of improvement in disaster preparedness within the development agenda.

Finally, the establishment of Housing Policy Section in 1999 was set to assist stakeholders and organisations to achieve the Habitat Agenda goal in international instruments. It contributed to the encouragement, policy and operational execution of the UN-HABITAT by bridging knowledge and expertise in various thematic areas in the housing sector development and policy responses (UN-HABITAT, 1999). The approach had a strong practical role in global research, partnership and consultation, studies directed at the housing sector and advice in advanced technical works that hopefully might assist the states involve.

### **2.3 Research in Disaster Planning**

Disasters provide a realistic environment to test the integration, stamina and restorative powers of large scale social systems. Disasters also provide social scientists with advantages that cannot be matched in the study of human behaviour in more normal or stable conditions (Fritz, 1961). However, McEntire *et al.* (2003a) notes that scholars are often unable to derive a definite conclusion associated with the concept of a disaster. Disaster is perceived as ‘act of God’ or ‘physical hazards’ that contributes to social instability. Although the complex physical and social aspects of disasters are difficult to describe briefly, agreement must be found. Quarantelli (1995a) argued that people can only describe disasters better by constantly trying to discover and explore disaster characters, conditions and consequences. Scholars’ identified three significant problems in emergency management research (McEntire *et al.* 2003a).

1. People make an assumption that disaster management is not the same as an emergency;
2. Responders have a limited jurisdiction;
3. Emergencies are rare occurrences.

Hence, emergency management studies have revealed the issues of misinterpretation and lack of understanding.

McEntire *et al.* (2003a) have identified significant interrelated concerns in theoretical development in the field of emergency management that consists of crucial concerns surrounding a disaster such as the definition of a disaster, emergency management, the variables that need to be studied in academic research and the actors that should be employed in such studies along with the phases that require priority. Thus, the theoretical development must retain:

1. The findings from prior research in the field; continue to search for an accepted definition of disasters (e.g. disruptive and/or deadly and destructive outcome);
2. Seek an alternative name for the field of emergency management (e.g. disaster management, risk management, sustainable hazards management or disaster vulnerability management);
3. Emergency management must also acknowledge all types of hazards (e.g. natural, technological or civil);
4. Establish a multi-causal view of disasters and appreciate complexity in emergency management (i.e. large numbers of variables to be studied);
5. Embrace each of the different actors involved in emergency management (i.e. the public, private and non-profit sectors);
6. Maintaining a reliance on the phases of disasters (i.e. mitigation, preparedness, response and recovery);
7. Integrate research from each of the contributing disciplines (e.g. hazard and vulnerability analysis, land-use planning, planning, training, exercising, community education, grant acquisition, budgeting and sheltering).

In conducting emergency management research, scholars are often confronted with the issue of identifying a 'subject matter' that is instrumental in framing assumptions around the research topic (Fritz, 1961). Subject matter is the focus point in every research and becomes the 'back bone' of research because it is the instrument highlighted and being measured all over the research work. In disaster planning and recovery, it is important to remember that there are a variety of other topics that have a bearing on or a relation to disasters that should relate to the 'subject matter' as the key subject of the study (Fritz,

1961). Researchers should also take into account the subjects such as attitude and culture, building code compliance, bureaucratic preferences, record keeping, handling mass casualties, communities with different needs and psychological effects in emergency management research (McEntire *et al.* 2003b). There was also a high level of concern in several disaster studies that mainly focused on the matters surrounding improper location of buildings, inappropriate construction, insufficient mitigation efforts and lack of cooperation in recovery planning and emergency (Quarantelli *et al.* 1977).

Thus, in sociological research, Quarantelli *et al.* (1977) argued that the sociological research on disaster should put more emphasis on social organisation, more on groups and the pre-impact period because, as argued by Kent (1987), communities are at risk not only from natural or technological (based in scientific and industrial progress) behaviour but also human behavior. The community reasoned that the lack of availability and dissemination of a full written plan is usually the reason for not being prepared for disaster (Davis, 2007).

Moreover, the use of the current written plan as a comprehensive reference distracts the attention of government officials away from other more critical activities for building a resilient disaster community, such as individual problem-solving abilities, possessing a positive self-view and fulfilling specific needs from a specific group of people in need. There is no guarantee with regards to the availability of a written plan translating itself into better disaster preparedness and recovery. Hence, planning is in actual fact as a process rather than existence of a written (documented) plan (Quarantelli *et al.* 1977). A comprehensive written plan usually involves continuous activities, practices, interactions and building of relationships from communities in order to improve actions taken at times of disaster impact (Quarantelli, 1997).

As suggested by Wisner *et al.* (2002), there are six crucial steps in disaster management that researchers should consider in order to understand the success of disaster management policy and implementation. They are:

1. The vulnerability assessment (basis for reducing vulnerability through work by making it possible to anticipate problems that groups will face in the event of a disaster and recovery);
2. Prevention and mitigation (preventing the physical hazard altogether and reducing the impact of future hazard events);

3. Emergency preparedness (long term development activities or programme to strengthen the overall capacity and capability of a country to manage efficiently all types of emergency);
4. Planning, policy and capacity building (programme for disaster prevention and mitigation are carried out according to clear objectives, with adequate resources and management arrangements; and to ensure that strategies, resources, management structures, roles and resources for emergency response; and recovery are determined and understood by key actors);
5. Emergency response (in providing immediate assistance to maintain life, improve health and support the morale of the affected population);
6. Rehabilitation, reconstruction and recovery (long term reduction of people's vulnerability to hazards by increasing their capacity to cope with and recover from present and future disaster).

All of these disaster management policy and implementation components are discussed thoroughly in the subsequent arguments.

## **2.4 Disaster Planning Principles**

Practical awareness of people and how they generally behave in emergency situations is crucial. In disaster plans, priority should be given to the prime local response without ignoring the lowest level of organisational authority because disaster planning is important in order to deploy officials and other departments in the rescue attempt (Drabek *et al.* 1991). Disaster preparation has to be effective and sensitive wherein the public is expected to perform (Drabek *et al.* 1991; Tierney, 1993). Thus, adaptation to generate strategies must be flexible in reaction to the numbers of laws, organisations, populations, technology, hazards, resources and personnel involved in response (Landesman, 2001).

Communities and authorities are more concerned about short term development and achievable variables (Heide, 1989). This type of mitigation policy often leads to problems especially in understanding the problem itself, addressing the problem and sharing information effectively. Competence planning design is required to reduce the level of bureaucracy and is crucial in communication and cooperation (ICMA, 2003). It is practical to put forward issues pertaining to disaster preparedness be better described in order to

reduce the impact on life, property and environment following the disaster because disaster environment involves political interest, social and economic issues. Disaster communities must be able to co-ordinate long term variables (e.g. social development, education and viable to economy), plan and work the plan as well as evaluate their accomplishments to suit with other social divisions (e.g. health, poverty and genders) (Heide, 1989).

A process for planning must describe planning on the strategic level (strategic planning at national or regional level); programme (programme planning deals with the needs of a specific group of displaced people); and project levels (project planning develops and manages the activities required to undertake each project within a programme) perspective (Corsellis *et al.* 2005). It gives guidance not only to develop profiles (understanding to social and physical contexts such as conflict, natural disaster, or complex emergency by undertake community assessment) and plans (report of a detailed course of action in response to a profile that should include the objectives agreed by all stakeholders, the activities required and schedule of operations in order to achieve the objectives) but also describes the phases of operation for planning that presents the sequence of events when planning and operations occur. Phases of operation are the most important due to crucial participation from all disaster communities (Davis, 2007).

Disaster community should focus on identifying, establishing and developing; and maintaining local and national capacities because they must know their own strengths before (preparedness and contingency planning to identify likely opportunities and constraints in responding to the expected situation), while disaster happens (emergency, care and maintenance to sustain the situation and recovery before next stage) and after (durable solutions and exit strategies for independent survivors) (Corsellis *et al.* 2005).

Bendimerad (2003) suggested that disaster response must involve stakeholder participation, an established public policy, safer practice of reconstruction and rehabilitation and educate preventive culture among disaster communities because disasters may come from different angles (i.e. natural or manmade) (Quarantelli, 1984; Dynes, 1993). A hazard is considered as a threat to people and their valuable possessions (e.g. property, environment and future generations) and risk is a measure of hazard. Specifically, risks are measures of the likelihood of potentially hazardous events leading to certain undesirable consequences (Drabek *et al.* 1991). Therefore, the need for a holistic disaster

planning is crucial to direct effort in reducing disaster risk and promoting community resilience.

Comprehensive disaster planning should then assist communities to minimise their vulnerability to hazards by maximising the application of the principles and techniques of mitigation to their development and/or redevelopment<sup>7</sup> decision-making process. People should understand disasters that create similar barriers in any effort to design disaster planning towards building a resilient community (Drabek *et al.* 1991; Tierney *et al.* 2001). Tierney *et al.* (2001) recognised that disaster communities have difficulties in identifying the link between disaster risk and community resilience. They also underestimate barriers in disaster planning by not taking appropriate and effective measures (preparedness) to reduce or minimise (mitigate) effects in response to disaster.

#### **2.4.1 Linking Disaster Risk to Community Resilience**

Federal, state and local regulation creates a confusing picture and often reduces short-term losses while allowing the potential for catastrophic losses to grow in the disaster (Mileti, 1999). Although, authorities' should most likely concentrate on damage assessment, needs entitlement and capacities of officials and availability of resources (Davis, 2007). Hence, 'depoliticise', or no political influence by the government, was introduced for the best practice in looking for the answer to recovery planning even if it is hard to achieve (Mileti, 1999). This type of government will make an effort to produce an accurate analysis regarding existing risks and try to overcome such issues before any disaster takes place. Scholars also suggested that governments should equip themselves with total jurisdiction of control over the risk that might be affected by a disaster (Davis, 2007). A good jurisdiction would be able to bring mutual understanding between agency leaders, initiate cooperation, identify the nature of future hazards and the disaster likely to occur; ascertain communication and establishment; and generate a procedure to assess any damage, injuries and deaths (Landesman, 2001).

Gathered information from past experiences in disaster management will expand the scope of the agencies during disaster operations to determine the type of actions that are appropriate and that depend on the level of vulnerability (ICMA, 2003). Besides the

---

<sup>7</sup> The terms 'resettlement' was adopted from Corsellis, T. and Vitale, A. (2005) *Transitional Settlement Displaced Populations* [Online] Available at: [www.shelterproject.org](http://www.shelterproject.org) (Accessed: 1 Feb 2007).

assessment of the health conditions of a community, information should also be gathered about the risk of other types of hazards or threats, such as building safety and the ability to protect disaster victims from further incidence, ability to maintain air quality, food safety, sanitation, waste disposal, vector control and clean water (Landesman *et al.* 2001) and probable losses in economic terms including expected post-disaster challenges (ICMA, 2003) (more about potential risk in section 2.8, p.42).

The detailed risk assessment information can be used to expand disaster response and emergency planning. Risk assessment is not simply in physical perspective but a perception from communities, hazard information and communication and the mitigation measures implementation (Mileti *et al.* 1990; Perry *et al.* 1990; Mileti *et al.* 1993; Johnston *et al.* 1998; Johnston *et al.* 1999b). Meanwhile, the documentation of essential programmes in risk reduction must be available at all times and within reach of all stakeholders (Mileti *et al.* 1992; Mileti *et al.* 1997; Ronan *et al.* 1998; Johnston *et al.* 1999a) and it is possible to accommodate all communities (Ronan *et al.* 1997; Paton *et al.* 1998; Millar *et al.* 1999).

As argued by Christoplos (2006), any relief reduction and development can become a platform of lessons learnt about risk and vulnerability of the people involved. Even if the pattern in all events of hazards is exclusive and similar in terms of physical effect, communities still encounter difficulties in setting up a model that can suit a single example of a disaster programme that can let a community 'bounce back' independently (Paton *et al.* 1996; Tobin, 1999; Van den Eyde *et al.* 1999; Lindell *et al.* 2000). Paton (2001) interpreted the meaning of resilience after disaster as the effort of the community with certain capabilities to act in response, or to recover effectively from the tragedy. Resilience describes the process of resourceful learning and the ability to recover psychologically in a group or individually (Paton, 2000).

Johnston *et al.* (2001) notes that active role and participation in disaster management has to come from the community and that involves assimilating and coordinating in terms of community consultation because emergency management societies become an element in directing the communities toward the process of change. Hence, more efforts have been directed towards promoting officials' responsibilities to bridge information from government programme to community. Authorities encourage participants from within the community by providing them with enough information regarding potential challenges in hazard scenarios and development strategies,

opportunities and threats to and from the community in order to educate and involve them in disaster programmes (Heide, 1989). Authorities try to attract attention from communities by encouraging them to increase self confidence in combating weaknesses, elicit perceptions of hazard, focus toward goal attainment and minimise unnecessary demand (Lindell *et al.* 2000).

However, the hazards phenomena per se limit exposure of the community to the real atmosphere of disaster. The rarity of hazard phenomena suggests that the process should focus on integrating hazard education with community development and problem solving to deal with existing or contemporary problems, with a focus on opportunities for growth.

#### **2.4.2 Mitigation and Preparedness in Disaster Planning**

Galea (2007) argued that the global community is increasingly aware of the fact that people are in trouble if the probability of hazards were to be ignored. The most appropriate way of battling calamities is by directing greater effort towards strategies in risk reduction rather than counter actions purely during a disaster aftermath. Consequently, the process of pre-disaster planning is included within the management framework and is fundamental in ensuring an appropriate and well-organised feedback (O’Keefe *et al.* 2006). However, the inability of authorities to deal appropriately with a disaster scenario was reasoned as an institutional failure thereby leading to political consequences. Barriers in mitigation and preparedness must be addressed in order to enhance risk reduction strategies.

##### **2.4.2.1 Barriers to Mitigation**

Stakeholder consultations have revealed solutions in disaster mitigation strategies in designing a national framework and its rationale in disaster risk reduction (PSEPC, 2004). It was unanimously agreed that the notion of deliberate investment in mitigation is a necessity to restrain loss on the scene of disaster. Even key proceedings (e.g. HFA and Agenda 21) were also prioritised to set a preference of actions in order to decide government portfolios to coordinate strategies and evaluate the outcomes of actions. The first step towards national strategy is the primary challenge in political diversion (Lalonde, 2007). Despite the fact that policy agenda and mitigation emerge as highly successful factors in disaster response, policy makers employ disregard in policy approach. Henstra



(2005) identified several barriers that hold back the development of mitigation strategies by authorities and response teams due to their hesitation concerning the issues below.

#### A. Hazards and Vulnerabilities

Mitigation requires an assessment of the hazards and vulnerabilities that policies are intended to address. Kates (1971) and Kates *et al.* (1986) interpret that hazards are the interactions of natural extremes and social systems that take place at a given point in an environment. Conventional theories suggest that, research and policy in hazards focus more on physical events causing disasters (McBean, 2000). In fact, hazard may be viewed as any threat likely to happen to any valuable possessions that include people's life, health and environment (Mills, 2001). O'Keefe *et al.* (1983) identified distinctive characteristics of hazards that complicate the process of disaster response such as picking the right solving efforts and the process of policy making such as:

1. The magnitude of a hazard (e.g. its size, relative to past events or to a certain threshold) limits the options available to prevent or mitigate its impacts;
2. Its frequency (how often a given hazard is expected to occur within a long run average) that influences the urgency of strategies required to deal with it;
3. Its area extent (the space affected) that influences the range of stakeholders involved in the policy process.

Meanwhile, vulnerability to disaster is a function of human action and behaviour. It describes the degree to which a socio-economic system or physical system react as sets resilient to the impact of natural hazards. It is determined by a combination of several factors, including awareness of hazards, the condition of human settlement and infrastructure, public policy and administration, the wealth of a given society and organised abilities in all fields of a given society and organised abilities in all fields of disaster and risk management (UNISDR, 2001).

#### B. Misinterpretation of Benefits and Costs

Policy is presumed to be defined, formulated and implemented locally. Unfortunately, as noted by Wolensky (1990) the limited discourse on local disaster management indicates that this is a particularly problematic area for local policymakers. This is due to the

uncertainty of the potential mitigation in benefits and costs. In the absence of the specific predictions regarding future hazards or evidence of future threat, local government is reluctant to invest in preventive measures. Godschalk (1985) emphasised that immediate and potentially significant costs must be addressed in any associated benefits.

#### C. Uncertainty Surrounding Public Demands

Citizens generally perceive a low probability of loss associated with hazards, except in jurisdictions where disaster occur frequently (Larsson, 1997; Lindell, 2001) and thus show little interest in disaster planning or loss reduction (Cigler, 1988). As a result, elected officials have few political incentives to allocate adequate time and resources to mitigation, when it is prioritised against other competing priorities such as economy development and political interest (Wright *et al.* 1981).

#### D. Lack of Direction in Organised Support

Following a disaster, a special inquiry commission by the government elected is required to report on the situation and make suggestions for improvement. After analysing data and hearing testimony from people involved before, during and after the event, members produce a report, usually with specific recommendations (that may or may not be implemented) regarding how similar disaster can be prevented, avoided or minimised (Drabek, 1986). In the best interests of the public, problem solving should be undertaken by the government and authorities should be set up as alternatives to existing mitigation plan (physical, social and economic) that should then be able to transform social learning into effective policy responses (Henstra, 2005). The route to success requires time and support from disaster victims who are uncertain about their own strength and roles in disaster planning.

#### E. Fragmented Plan of Incentives and Resources due to Lack of Political Will

Inter-governmental collaboration is difficult to organise and sustain (Wolensky, 1990) even though this type of collaboration is still considered as an essential key to develop and implement policies for disaster mitigation (Mushkatel *et al.* 1985). Local government are perhaps best positioned to implement mitigation due to their close proximity to hazards as they control many of the most effective tools to reduce vulnerability to hazards, such as

land use regulation and building code enforcement (Prater, 2000). Given that the probability of a disaster in any particular community is low, local officials are not likely to see mitigation as a pressing priority (Wright *et al.* 1981). Moreover, due to most of the financial costs of recovery after a disaster being shouldered by insurers and national governments, local government appear to have weak economic incentives to invest in loss reduction measures.

#### F. No Determination in Disaster Policy Making

Most disaster management policies are formulated in the immediate aftermath of a disaster and are a reflection of political interest. In the scene of a disaster, political agendas emerge as a weapon that broadens the interest by the electronic and print media to draw attention to the situation in an effort to seek immediate actions from other communities (Cigler, 1987). Consequently, post-disaster policies are expanding in terms of government eligibility and budgeting in the future disaster programmes. Thus, political interest is the most popular agenda when disaster happens rather than an emphasis on preparedness and mitigation efforts in order to win the support from the public (May *et al.* 1986). For this reason, as suggested by Perry *et al.* (1984), it is better to make policies for disaster mitigation during normal periods, where there is less political pressure to act quickly and where policy can be formulated without specific reference to the most recent catastrophic events.

#### **2.4.2.2 Barriers to Preparedness**

Disaster planning requires support from both the public and local government. The responsibilities of the public do not rely only on the local government. The dynamic role of the public plays the key role in a successful disaster prevention and protection program. Communities, for instance, should find out how to obtain a first-aid kit or out how to get information if a disaster should occur; plan how to evacuate the home in a fire and learn how to deal with crisis reactions (Denis, 1995). They should be aware of food supply sources and take out personal insurance policies (Drabek, 1986; Drabek, 1987). Unfortunately, many people are not interested in preparedness and are unwilling to take precautionary measures themselves. Disaster communities prefer to participate in activities or programmes which are not time consuming, cheap and without the need for specific skills. Members of the general public tend to participate in voluntary services to avoid real

commitment with authorities if necessary, due to the uncertainty of disaster occurrence and finding no real reason for the need to prepare (Cigler, 1988). Other reasons for lack of action may be that people do not know what they should do, what to prepare if disaster is uncertain.

Less public awareness might lead to a backlash where the civilians blame the government for not making them aware of their actions during a disaster situation (Larsson, 1997). The government should come up with a more concrete public awareness programme instead of a simple paper orientation (ICMA, 2003). Local government usually pays less attention to these issues based on assumptions that disasters occur rarely. Local government assumes that their responsibilities in disaster relief are limited only to providing road repair and crime prevention. Then, the concept of preparedness planning is subsequently lost (ICMA, 2003). The government should be aware of the principle in any post disaster development from disasters that focus on the crucial participation of affected communities, in order to study how to provide income generation, or rebuild social support networks, activities essential for maintaining cultural identities and reviving and conserving the often protective but vulnerable ecosystem (Johnston *et al.* 2001). People should be centrally involved in planning the recovery and rehabilitation of their own communities.

Therefore, in order to overcome obstacles in preparedness, the collaboration between national, state and local politicians is a necessity. As suggested by Davis (2007), although the stage of policy implementation rests at the district level, policy planning is predominantly the stronghold of the central government. The portfolios of central government officials should be transparent in the application of professional skills where leaders demonstrate the best examples of practice to other officials. Then, government officials establish a good relationship with disaster communities identified as instrumental for understanding disasters situation. Cooperation from all levels in the disaster mechanism and the public is the ultimate goal in order to deliver a national disaster programme. The leaders need to work closely with officials to make sure that all related parties are included in the planning of disaster preparedness (ICMA, 2003).

## **2.5 Roles of Government**

National public and media expectations of humanitarian post-disaster activities require action by the central government. Scholars found that there are four reasons why researchers have focused on government reactions to disaster management:

1. Government is responsible for implementing government policies (Perry *et al.* 1984).
2. Government is the most trusted body elected by the people (Herman, 1982).
3. The third is the transition of power from the federal to local government (May, 1985).
4. The comprehensive plans of disaster management make it easy for all parties to co-operate with the federal, state and local agencies (Cigler, 1987).

Government has close involvement with hazards, as they control many effective tools to reduce vulnerability to hazards such as land use regulation and building code enforcement (Prater, 2000). This usually results in the involvement of local government, line ministries and the emergency services along with the armed forces, in order to demonstrate the state's social responsibility. Despite these developments, however, the government's willingness and capacity to meet new expectations is often lacking. The government is still facing the same old issue of disaster management plan implementation because of the intergovernmental problem (Cigler, 1987). This common government recovery strategy appears without changes to any significant organisation (Davis, 2007). Lack of investment in preparedness and response capabilities becomes quickly obvious at the time of an emergency (Davis, 2007). Thus, Wolensky *et al.* 1990 notes that the overall performance of government and its officials emerges as problematic and still the focus of disaster response.

### **2.5.1 Government Measures in Disaster Phases**

The dilemma of credibility and government commitment in deciding the best model to reconstruct buildings and infrastructure is one of the most challenging tasks for the managers in disaster response (Davis, 2007). This relates to more fundamental issues in the recovery planning. Whether, for example, emphasis should be given to satisfying short-term basic reconstruction needs, or rather to focus on addressing long-term needs that may

provide a better measure of risk reduction. There are four phases of actions involve in disaster planning as describe below.

#### A. The Pre-disaster Period

In the recent years governments have directed their activities towards mitigation and preparedness planning due to state mandates (Hoetmer, 1983b; Perry *et al.* 1984; Wolensky, 1986). The task of meeting a certain level of satisfaction in public service is getting more difficult to achieve in terms of competencies within the workplace, proper application of knowledge related to the position, punctuality and the ability to work well with other employees (Cigler *et al.* 1987). These experiences of handling disaster management increases organisational capability in planning (Mileti *et al.* 1975; Drabek, 1986) and seems to apply to all local governments because it is the constitutional framework that must be tested by law; it is the dynamics of the relationship itself, the ways that each seeks to influence the other; and it is the impact of each on the wider issue of local governance, the overall experience of the citizen (Rossi *et al.* 1982).

However, not all local governments are willing to apply all their efforts to comprehensive hazard management. Some of them only take action in particular hazard management without considering any other responsibilities such as defenses, social development and criminal laws requirements (Perry *et al.* 1984; Cigler *et al.* 1987). Thus, local government always makes sure it stays away from:

1. Providing insufficient conceptualisation of the planning practice (e.g. government philosophy and ideology, priorities and time availability);
2. Inadequate authenticity for planning (e.g. ad-hoc and situational based);
3. Unproductive planning practice (e.g. unattended victims needs and unachievable project objectives) because planning processes are normally initiated by planning jurisdictions at central government.

#### B. The Emergency Period

Dynes *et al.* (1972) suggested that communities are actually vulnerable in disaster and not ready to cope with the effects of a disaster and get back to their normal life as before the disaster strike. In the scene of an emergency, communities have not always been well organised throughout the emergency phase. Overall community resilience revealed the role

of the local government. Scholars found that there is a failure in implementation of disaster planning whenever the local government tries to cope with disaster problems without adequate collaboration with other public committee and other related agencies (Jacobson, 1962; Barton, 1970; Dynes, 1970). Even some local governments admitted that they still manage to administer disaster situations without a clear definition of their own capabilities in terms of adequacies (Dynes, 1970). Perry (1985) argued that some local governments take advantages in times of emergency in given benefit to certain groups, especially in term of financial support from foreign assistance.

At some point, there might be a possibility that some authorities completely disappear from the disaster scene and let the army to take action (Quarantelli, 1995b). However, there are ways to tackle weaknesses and problems in local government performance especially in the matter of unproductive government configuration, leadership, awareness of preparedness and unnecessary demands. First of all, local government has to increase local officials' experience, quality and personality (Clifford, 1956; Moore, 1963; Barton, 1970; Slovic *et al.* 1974). The organisation in local government also must have the willingness and ability to configure a comprehensive plan (Cullen, 1976; Perry, 1985; Godshalk, 1988). As suggested by Stalling *et al.* (1987), local government formation must work toward decentralised authority that gives less of a role to central government; decentralisation increases 'semi-autonomous' agents, less dependent on central control and an establishment that can establish coordination in emergency situation.

### C. The Early Recovery Period

At this stage, researchers proposed the approach of 'principle of continuity' that link the similarities in pre and post disaster (Quarantelli *et al.* 1977). This approach limits flexibility and adaptability. For example, a custodial or maintenance oriented pre-disaster government will give highest post-disaster priority to streets, roads, garbage and other custodial tasks, while other functions such as recovery administration, intergovernmental coordination and conflict adjudication (judicial determination) will receive less attention (Wolensky *et al.* 1981). Local government depends on the state government for options similar to an emergency (Stallings *et al.* 1987). They also start looking for other unavailable resources like funding and professional staff (Francaviglia, 1978). Normally, smaller governments are comprised of a minimal capacity of staff compared to larger local government

organisations. Due to bureaucratic and legal restrictions, decision making at local government stage is slower compared to private organisation like NGOs (Haas *et al.* 1977) because NGOs involve a small organisation or less complications.

#### D. The Long-Term Recovery Period

Again, local governments are slower in providing necessity such as foods, first aid and other basic amenities compared to speedy initiatives in terms of planning and implementation by private organisations due to less bureaucracy (Haas *et al.* 1977). Private organisations have more expertise compared to elected officials well known for ‘rubber stamp staff approvals’ that will act based on their superiors’ instruction and decisions in an organisation (Francaviglia, 1978). Compared to the short-term recovery period, long-term recovery phases also experiences the same situation with the influence from the communities (Norton *et al.* 1970; Wolensky *et al.* 1983).

One of the main issues in long-term recovery is hazards mitigation and adjustments of land use. Local government has to be sensible in handling disaster management especially in new land development that may cause more vulnerability to affected community (Smith *et al.* 1979). Therefore, the local government must be able to establish high level of consistency in providing assistance in the pre and post disaster (May, 1985; Ender *et al.* 1988). Scholars found that in most cases the local governments are often unable to administer straightforward laws and regulations and disregard putting effort into hazard and risk management especially in providing housing due to time constraint and conflict of interest from many parties in terms of equality, adequacy and discriminations (Rossi *et al.* 1982).

#### 2.5.2 Government Dilemma

With regard to issues concerning environmental protection and natural hazard mitigation, a majority of the affected population and regulators usually seek minimal government involvement in order to avoid steep taxes and more importantly avoid bureaucracy that would complicate the situation (e.g. legal actions and mass media attentions) (Turner *et al.* 1986). However, those subject to regulation expect the local authorities to draw an appropriate relief plan along with expectations of a safe and secure environment. The local government is then held responsible for finding appropriate resources in order to make the



exact interpretation of differences between responsibility and resources (internal and external) dilemma (Langran *et al.* 1982). The local government will work through their legislative structures to discuss these responsibilities with agencies involved and achieve the desired outcome within the capacity of resources available, such as professional and financial support and accessible equipment.

The problems within local governments have a deep impact in implementing federal government programmes in disaster planning. The problem in local management can be interpreted as an example of unpredictability and inconsistency in providing adequate resources to the stakeholders in disaster relief works based on existing legitimacy and organisation objectives. It is also considered a weak local government if they fail to place right officials with or without professional qualifications within their organisation to get public support. Weak leadership and planning also contribute to the failure of local governments in action (Nilson, 1985). Thus, the issue is much more complex than it seems in the scene of disasters.

Nowadays the local government is more concerned with producing more professionally trained officials in order to achieve the desired level of effective management. The new management puts more emphasis on enhancing local government standards and legitimate action; lawful authority; an encouragement in sustaining action; and resources of institutional interest. However, the ideal planning design stands to be unsuccessful if the officials' fail to blend together correct attitudes and translate this into policies. Officials initially require an understanding of the internal structure of the organisation as a result of adequate information about the direction of the organisation (Wolensky *et al.* 1990). Adequate information will then influence officials to the correct attitudes in policy implementation.

Scholars pay extra attention when it comes to the critique of:

1. 'Apathetic/unconcerned politics' patterns in disaster planning at the local level (Wright *et al.* 1981);
2. Lack of initiative in designing local disaster policy-making (Cigler *et al.* 1987), no fair consideration in appointing officials (Hoetmer, 1983a);
3. Officials not well trained or not prepared (Dynes *et al.* 1972);
4. Officials make an assumption that disasters would never occur (Petak *et al.* 1982);

5. Officials in organisation have trouble working together as a team (Ruchelman, 1988).

These are all the reasons that contribute to unachievable disaster planning objectives. Problematic local government is a government that relegates them to a low priority in disaster response, adopts responses in a manner consistent with other government roles and responsibilities (without trying to suit the local atmosphere) and leaves private interests to make decisions. The problem worsens if any local government fails to consider public requirements in the designing and application of disaster programmes (Wolensky *et al.* 1990). Scholars have also argued that local government stability is not the only reason in implementing policies and optimising resources. It is actually the reality of the political base that should be established along with decentralisation from federal government and two-way interactions (Dynes, 1983; Drabek, 1985, 1987).

As a result, the disaster victims and other members of the general public are more concerned about the availability of resources to support life recovery, ignoring any weaknesses of the local government (Abney *et al.* 1966; Wolensky *et al.* 1981). Almost certainly, this is the main reason why local governments are keener on delivering material resources rather than working along with internal organisational affairs. At the scene of a disaster, officials are often caught in the middle between working with ethics and programmes' implementation whilst they have failed to fulfill requests from the disaster victims and public. This internal structural dilemma must be understood by the local government as a learning process towards a better strategies for formulating a comprehensive disaster planning to suit the demands from organisations in local government, officials and other members of the general public.

## **2.6 Learning from Imperfections of Disaster Planning**

Quarantelli *et al.* (1977) argued that communities give very low priority to disaster planning. Drabek (1986) points out that even developed countries like the United States of America also face issues of authority uncertainty (i.e. regional cooperation between the province and the municipalities especially to access tax fund), task domains (i.e. regional board faced the problem of land use within the municipalities) and support from the public

(e.g. public unaware of disaster victims, what is the right treatment, who and when to refer and how to deal long term treatment issues). However, developed countries do encourage activities and training in disaster mitigation especially from federal governments through federal grants; utilisation and integration of crisis services (e.g. hospital and community base); utilisation of mental health professionals and support personal; form 'crisis teams' from outside the disaster area to support response team; use available local and outside network and financial support; and constitute educational forums amongst local experts (Quarantelli *et al.* 1977; Newkirk, 2001) that should inspire other countries to do the same.

In the process of social learning, most of the successful disaster planning by local government is established from their experiences in handling previous disasters such as learning from disaster planning rectification, enhancing local government coordination and cooperation from disaster communities. The development of a two way relationship between community leaders and key officials elected in disaster management mechanism and maximising resources available are considered as key factors of success in disasters programs. However, it is not often that local governments try to educate the communities to the hazards that might threaten them. Hence, the community must take the initiative to understand a disaster perspective, and how they as an organisation attempt to cope and assist in the recovery process. Quarantelli (1980) suggested that the community must first keep the effort simple and not over organise, create a good relationship with authorities and unaffected neighbouring areas, learn the national emergency framework and learn from previous attempts in disaster and never start without any clue.

Planning for a disaster should be differentiated from managing a disaster (Quarantelli *et al.* 1977). Disaster planning involves pre and post-disaster phases. Managing a disaster is the outcome base approach when disaster strikes. Such planning is an ongoing process and not a product. It is based on likely events, not worst possible cases. It aims for appropriate, not necessarily speedy responses. It is based upon accurate knowledge of disaster behaviour and on patterns of everyday routines. And it avoids 'command and control' structures (see section 3.2, p.49, p.4). Wenger *et al.* (1980) acknowledged weaknesses that planning officials have faced in implementing programmes in disaster management. They include:

1. Assumptions that their behaviour not reflect to disasters and public response;
2. A firm mind-set that disaster planning is not their working culture;

3. Assumptions that disaster planning is not a process but a product;
4. Failure to overcome the barriers in understanding what comprises an emergency and rather wait for further top administration orders;
5. Failure to prepare and react to an effort of information distribution to surrounding communities;
6. Failure to act quickly in setting up command centers and communication;
7. Inability to compare between the real instruction from the administration and their own responsibilities;
8. Failure to responds as required due to lack of preparation.

Therefore as argued by Faupel (1987) disaster planning largely ignored the sense of sociological human ecology that consists of population, surroundings, social organisation, customs and technological scope of communities. Environmental and behavioural aspects in sociological act as priorities as shown in Table 2.1 that considered as the influential factors (i.e. organisational, supervisory, operator, regulatory and technical) in organisational administration (Toft *et al.* 1999).

**Table 2.1: Social Categories and Properties of Errors**

Category	Sub-category	Properties
Organisational	Procedural	Rules and regulations; operating procedures and manual; administrative controls; documentation; and communication
	Training	Competency and inadequate knowledge
	Management	Leadership, policy and resources
	Safety-specific	Safety policy; emergency planning; maintenance; inadequate design; monitoring/auditing; lack of corrective action; poor accident reporting; and detection and alarm facilities
	Failure to learn	Cover-up accidents and fail to learn from previous accidents
Supervisory		Fail to recognise unsafe operation; lack of professionalism; disregard for higher authority; not adhering to rules and regulations; apathy attitude; and failed to correct problems
Operator		Incompetence; sub-standard practices; violation of rules and regulations; and ignorance
Regulatory		Ineffective monitoring by regulators; outdated laws and regulations; poor inter-agency co-ordination; inadequate resources of regulators; complacency of regulators; and Ineffective communications between agencies
Technical		Equipment failure

Adapted from Toft *et al.* (1999)

In additional, Meidinger (1987) argued that people uses culture to adapt to new environments and environmental change that is influenced more by social than by biological variables (e.g. genders and races). They depend much on human interaction with surroundings (natural environment). In the natural environment (i.e. biological and economic foundations), human ecology provides a broader and cross-disciplinary perspective that is influenced by physical environmental, political, legal, psychological, cultural and societal forces that should be explained as key influences in implementing disaster planning strategies.

## **2.7 New Emergency Management Model**

A new diverse element of emergency management creates a multi-disciplinary; multi-organisational; and two-way event of nature and technologies (Harrald, 2006). Based on the various recent studies as shown in Table 2.2, scholars found out that emergency management framework requires utilising of organisation resources such as:

1. Humans, technology, financial and equipment;
2. Ought to consider influence factors such as economic, cultural, educational, political, legal and organisational;
3. As well as functions such as communication, coordination, information sharing and decision making.

Any procedure in emergency response must be based on the combination of a socio-technical system and human organisation in order to put together technical and organisational response to protect vulnerable communities (Comfort *et al.* 2006). The combination of these resources, factors and functions determine the system of successful emergency management in a large-scale system.

**Table 2.2: Success Factors in Emergency Management**

Study	Mentioned Factors
Marincioni (2007)	Interpersonal interaction, disaster knowledge sharing and transferability
Gopalakrishnan <i>et al.</i> (2007)	Integrated disaster risk management; preparedness/warning, reconstruction/rehabilitation and disaster mitigation agencies; disaster-related laws, regulations and statutes; culture, tradition and customs; adaptability of the measures to the local conditions; access to information; information availability; information transferability; affordability of possible solutions; decision making autonomy; political and managerial accountability; improved multi-agency collaboration; optimal resource management; participation of public and private agencies, individuals and communities; shared collective experience and wisdom of disasters and knowledge of local conditions
Fedorowicz <i>et al.</i> (2007)	Collaborative network
Harrald (2006)	Agility (creativity, improvisation and adaptability) and discipline (structure, doctrine and process)
Horan <i>et al.</i> (2006)	Socio-technical systems, inter-organisational factors, time-critical information services, human-computer interaction, organisational policies and IT utilisation
Corbacioglu <i>et al.</i> (2006)	Organisational flexibility; information infrastructure; cultural openness; effective coordination and collective response; and information flow
Kapucu (2006)	Communication system, effective source utilisation; knowledge and technology; and trust among public, private and non-profit organisations
USGAO (2006)	Clearly defined leadership roles, responsibilities and lines of authority for the response at all levels; effective communication; and fast decision making
Dawes <i>et al.</i> (2004a)	Integrating; information sharing; social and technical structure; and larger political and organisational environments
Dawes <i>et al.</i> (2004b)	Political, social, economic, cultural, organisational, technical environments; collaboration among public, private and non-profit organisations; volunteerism; leadership, trust and risk management; and communication
Dawes <i>et al.</i> (2004c)	Effective use of information and communication technologies; and organisational competence and experience
Dawes <i>et al.</i> (2003)	Capabilities of the technical tools
Schoenberger (2002)	Interoperability during emergency and public policies
Bardach (2001)	Effective communication and trust
Comfort <i>et al.</i> (2006)	Organisational learning; cultural openness to new information; important in influencing both organisational flexibility and technical structure in practice; coordination; and organisational authority, skills, knowledge, resources and capacity
Dynes <i>et al.</i> (1977)	Communication for organisational decision making and coordination

Adapted from Ozceylan *et al.* (2008)

As a starting point, a well planned emergency management should put emphasis on roles of officials, responsibilities, clearly define the task at different levels and should

encourage efficient communication and decision making. Efficient decision making in turn depends on well trained and highly qualified leaders with enough exposure and experience, provided with adequate access to a wide range of information in order to make things happen. The leaders should possess a clear objective in carrying out duties and should be capable to carry out specific tasks with desired results, supported with a combination of resources including people, protocols, funds and technologies. Consequently, disaster management mechanism urges to ensure availability of effective planning, coordination, training and practices. These planning, coordination, training and practices in emergency management should be realistically tested on problems encountered and within reach of other stakeholders (USGAO, 2006).

Harrald (2006) argued that in terms of preparedness and prevention, it depends much on the level of awareness and the strength of internal institutions to create and maintain a better understanding based on realistic response plans. It is essential to discover capability to initiate reaction and mobilisation in order to obtain access to a better organisational network and resources. Thus, any country must clearly define phases of organisational integration especially with the effort to define which organisation holds greater responsibility to implement disaster plans. The extent of prior warning is the first move in dealing with an emergency. Immediate action in any emergency response is crucial in setting up post control; as is mutual understanding and coordination between emergency providers; and formulation of communication networks.

Finally, the indicators to measure a successful output in disaster response are identified as rapid action, massive funding, improved working conditions, community outreach and integration of relevant institutions (Inam, 1999). End products are expected to reach the disaster victims in a correct manner that in turn depends on organisational productivity. Williams *et al.* (2000) argued that the government should always notice levels of improvement in the engagement programme as a result of this learning process. Ozceylan *et al.* (2008) concluded the notion by identifying six formulas of success in emergency management that would act as a universal national emergency management mechanism. A model of an ideal emergency management mechanism is influenced by technological factors, cultural factors, socio-economical factors, organisational factors, political factors and risk factors. Still, these factors of success depend on each country's specific conditions and capabilities.

## **2.8 Potential Risk of Post-Disaster Recovery**

Post-disaster recovery is a multi-faceted and lengthy process including physical, economic, physiological, social services and natural and ecological aspects (May, 2007). In any post-disaster planning and recovery, reconstruction of infrastructure and housing are two of the primary challenges, such as ensuring enhanced seismic design and construction quality because a main indicator to measure the outcome of risk reduction indicators is the percentage of houses constructed according to building codes with appropriate hazard-resistant features (Christoplos, 2006). The question inevitably arises whether the development of the affected community is free from potential risk.

According to the sociological perspective, risk indicates the possibility that a certain course of action will trigger future injurious effects such as losses and destruction (Giddens, 1990). The terms of risk, danger and hazard are used as interchangeable and overlapping because risk is defined as the probability of an injurious effect resulting from a hazard (Kaplan *et al.* 1981). Risk may also be defined as the possibility that a certain course of social action is already set to create undesirable effects (e.g. losses, destruction and effects of future generations). The concept of risk is considered as an opposite to security where the higher the risks the lower the security of the displaced populations (Luhman, 1993). The potential risks of post-disaster recovery to the affected community are reflecting to 'impoverishment' and consider as potential risk of moderate or serious harm to the health and safety of the occupiers (or others) of the residential premises.

Displacement risks to the people are the result of a multifaceted process of displacement components towards impoverishment known as landlessness, joblessness, homelessness, marginalisation (the social process of becoming), food insecurity, increased morbidity (incidence of a disease), loss of access to common property resources and community disarticulation (cause to separate). Therefore, with the help from authorities strategies should be taken to change from landlessness to land-based resettlement, from joblessness to reemployment, from homelessness to housing reconstruction, from marginal to social inclusion, from increased morbidity to improved health care, from food insecurity to adequate nutrition, from loss of access to restoration of community assets and services and from social disarticulation to networks and community rebuilding (Cernea *et al.* 2000). The sign of significant progress may take a long time to consider as full recovery because



the process of redevelopment requires full participation from other members in communities (NGOs, private sectors and public sectors).

Authorities also have an important role to play in contributing to the overall housing supply (Dorris, 1998) because secondary disasters (collateral disaster) are often cause far more damage and problems than a primary disaster (a first disaster such as an earthquake that causes or brings in its wake one or more disasters such as a fire or tsunami) (Comeria *et al.* 1996). Unacceptable housing conditions partly or entirely due to non-compliance with building codes and other related legislation is considered as potential risk of moderate or serious harm to the health and safety of the occupiers (or others) of the residential premises such as:

1. Physical injury (burns, wound and serious bodily injury);
2. Psychological distress (sadness, frustration, anxiety and a number of other negative mood states);
3. Emotional and psychological trauma;
4. Psychosocial effects as a result of secondary disaster (Levine *et al.* 2007).

Emotional and psychological trauma is the results of extraordinarily stressful events that ruin a sense of security, making victims feel helpless and vulnerable in a dangerous world. Traumatic experiences often involve a threat to life or safety, but any situation that leaves victims feeling overwhelmed and alone can be traumatic, even if it doesn't involve physical harm. Psychosocial effects are psychological developments ranging from individual interaction and relationship with a social environment or community culture. Psychosocial support is an approach to victims of disaster, catastrophe or violence to promote resilience of communities and individuals (Chemtob *et al.* 1997). It aims at easing continuation of normal life, facilitating the participation of affected people and preventing pathological (caused by disease) consequences of potentially traumatic situations.

The ability of the built environment to withstand the impacts of natural forces plays a direct role in determining the casualties and economic costs of disasters. Disaster resistant construction of buildings and infrastructure is an essential component of local resiliency (Cernea *et al.* 2000). Engineering codes, standards and practices have been acknowledged and practiced for natural hazards prevention. However, investigations after disasters have

revealed shortcomings in construction techniques, code enforcement and the behaviour of structures under stress (Mileti, 1999).

There are circumstances however where it is necessary to enforce housing standards to protect the health, safety and welfare of occupiers, the public and occasionally the wider community. It is the purpose of framework or policy to ensure that where it is necessary to enforce standards that authorities achieve and maintain a consistent and balanced approach. Thus, relevant legislation will be used and consideration will be given to codes of practice; statutory guidance; and best practice. Any post-disaster recovery framework or policy in providing housing must come with specific rules and regulation such as Housing Act, Building Codes and Law of Property Act. Such rules and regulations will give authority or local authority powers to intervene where housing conditions are unacceptable to reduce the risk of human casualties (Imrie, 2007).

### **2.8.1 Risk Reduction in Housing**

Work in providing shelter is perhaps more complex than any other kind in emergency relief work due to land ownership issues. Often the pressures of time, limited contingency budget and people's needs counteract the demands of quality and suitability (Morago, 2005). Post-disaster housing recovery encompasses four components that appear in succession:

1. Emergency shelter;
2. Temporary shelter;
3. Temporary housing;
4. Permanent housing (Quarantelli, 1995b).

As the disaster recovery period lengthens, temporary housing can begin to take on a permanent character, even if the housing is not suitable for long-term habitation. This remains a concern of many planners and policy makers (Schwab *et al.* 1998). Scholars have long noted that authorities vary widely in terms of the disaster-related policies they adopt, due to political and economic factors and disaster experience (Godschalk *et al.* 1998). This scenario demands certain standards and guidelines that initiate benchmarks to the way monitoring and evaluation can be done in humanitarian response. The improper use of standards and guidelines may lead to the under-provision or over-provision of outcome (Corsellis *et al.* 2005) due to insufficient use of all requirements, under-represented or

excluded from the standardisation process. Therefore the proper use of standards and guidelines must in balance by asserting the objectives, rationale of existence, standardisation and representative.

There are five key principles of better building regulation practice for displaced people from authorities that should include:

1. full application of all related laws and securing compliance and also means relating enforcement action;
2. Consistency in approach;
3. Targeting of enforcement action where the hazards are least controlled;
4. Transparency in what is expected from regulates;
5. Accountable to the public for their actions (OPDM, 2005).

In order to achieve compliance with statutory requirements in providing housing, authorities will also, where possible, work informally with occupants or other members of the public in removing or reducing risks to the health and safety by reconsidering the use of all other relevant legislation to remove or reduce those risks. Responsible authority is committed to being independent, fair and objective to deal with all members of the community equally, irrespective of age, gender, sexual orientation, ethnic or national origin, religious beliefs, political views, illness or disability (Imrie, 2007). Therefore, authority must be aware of the obvious breach of the law; reckless disregard for the environment; deception that may or may not result in a loss or potential loss of public funds; and failure to comply in full or in part with a statutory notice or order. There are two types of mechanism for improving regulatory or authority compliance through enforcement activity:

1. Direct order and inspection;
2. Provide them with incentives to comply by increasing the probability of detection and the expected penalties when caught out of compliance (Weil, 1992).

However, regulatory compliance is a complex, flexible, dynamic and interactive process that can include various states of affairs from ongoing efforts to achieve and maintain regulatory requirements to go 'beyond compliance' as a target. Thus, enforcement

by authority involves more than prosecutions (Hutter, 1997). The topic of regulatory compliance will be discussed thoroughly in the next chapter.

## **2.9 Conclusion**

People most probably misjudge disaster due to the fact that they have never been in a disaster situation in the past (Larsson *et al.* 1997) thus they give very low priority to disaster planning (Quarantelli *et al.* 1977). The general public seems to underestimate disasters until they experience it themselves. Even developed countries do not allocate big budgets in disaster management, time and other resources in planning for disasters due to rare occurrence of disasters (Davis, 2007). However, most of them are prepared in terms of regional networks, budget allocations, awareness on insurance coverage and many more (Newkirk, 2001). Unfortunately, developing countries are more prone to be predominantly hit by the disasters compared to developed countries (IFRCRCS, 1993). Even development plans do not usually take form in most cases in developing countries (Isbister, 1994). As a result, 95 per cent of fatalities occurred after disasters in less privileged countries (PHO, 1994). Thus, people live in developing country are, most likely, more vulnerable to hazards. A hazard is the result of an increasing impact towards vulnerability on humans and society. In this respect disasters are not isolated events, but a sign of the insufficiencies and weaknesses within society, tempted by human-determined paths of development. However, considerations by society have been made concerning pre and post-disaster planning. Alternatives in thinking and planning to incorporate needs that are involved in post-disaster reconstruction have also been highlighted. Recovery requires an intensive approach that will support the foundations of community sustainability and capacity building and that will eventually reduce risks and vulnerabilities to future disasters. Government alone, as elected authority with overall control of legislation, is unable to facilitate recovery efforts without knowing the needs of a community. This is where the real challenge begins especially in housing reconstruction. Shortages of qualified people to handle impact assessments, the time taken for normal processing of building consents that require a more flexible approach and the need of government roles as the authorities elected are always the issues in disaster planning and recovery. Furthermore, routine regulatory and legislative processes would not facilitate regulatory bodies coping with the volume of work associated with the reconstruction efforts and administration routine at the same time after disaster.

Recently, new routines in the emergency management model, focuses more on government responses because of hands-on experience with the communities. Problems related to the government were highlighted in advance before addressing actions in disaster phases. The following chapters will examine the groundwork of present investigations to disaster management development in terms of international and national legitimacy, legislations, compliance and the way officials respond to it.

## CHAPTER 3

### Compliance and Enforcement

“Laws only exist because men can be guilty of injustice. Where it is possible for people to act unjustly among themselves, it is also possible for them to act unjustly toward each other”.

(Aristotle, Book V, Chapter VI)

#### 3.1 Introduction

There has been too great an emphasis on inputs, rather than outcome and impact in post-disaster recovery (Bennett *et al.* 2006). The monitoring/reporting formats used by all the agencies concentrated mostly on physical distribution. As a result, disaster survivors do not get what they deserve and expect; what is accomplished is rather what the government wanted. The survivors' development cannot be tracked systematically due to lack of interaction with government (Bennett *et al.* 2006). Thus, compliance with regulation is not prescriptively based on input. Planners in government should also look into the fact that disaster is not the only cause of disaster victims; human actions, especially by those who have legal control over disaster planning are also to blame.

Contemporary debates in regulatory studies concerning the relationship between science evidence and the regulatory policy (art) of policy making (at government level and judiciary) are expanding (Irwin *et al.* 1997). Regulation is an art (Weinberg, 1972). A design of regulation is a sociological approach that represents uncertainties and structural conflicts in the policy process resulting from the different perspectives, interests and rationalities of different groups involved. However, it is difficult to define based on the level of uncertainty especially when dealing with the issues of risk and environmental hazard because of the relationship between the presence of scientific evidence and the making of policy decisions making (Weinberg, 1988).

Weinberg (1972) suggested that regulatory science should be treated as ‘a new branch of science’ because the norms of proof are there and similar to the norm of ordinary science or academic science (e.g. in speculative research related to regulatory evidence such as chemical toxicity/environmental hazard); in development and validation of

regulatory tests (specific test to the chemicals for potential hazards); and in regulatory compliance testing (measure by using scientific services).

Regulation might be translated into a package of dependable rules that is governed by a mechanism known as an organisation (i.e. public entity) in order to monitor and promote regulatory compliance (Baldwin *et al.* 1998; Gunningham *et al.* 1999b). In a broader context, the concept of regulation is the method of enforcement of rules that includes the system of taxation measures, subsidies and relevant incentives by using mechanisms available (Baldwin *et al.* 1998). Based on this definition, the regulatory environment is controlled by actors within the government and external such as corporations, professional organisations, international stakeholders, non-government organisations (NGOs) (Brereton, 2003), other community assemblies and private communities.

Thus, Haines (2002) identified key themes that are considered as main indicators in the regulatory practice towards good governance (see section 3.2, p.49) by regulators. Regulators should be aware of the regulatory aims and any flexibility allowed in the process, especially the priority to execute decisions, rather than prescriptive compliance with rules. They should emphasise enhancement in self-regulation; ‘culture of compliance’ promotion; strong leadership; and utilise experts’ availability in order to ensure that both regulatees and regulators satisfy the process of regulatory compliance. However the question inevitably arises whether regulators can fully comply with regulatory framework (as shown in Appendix 7, p.339) set in disaster plan or uses disaster (often the pressures of time, budget and people’s needs) situations as an excuse. Disaster is not just an environmental tragedy it is also a human rights disaster due to governments’ political and socio-economic pressures.

### **3.2 Regulatory Compliance**

Generally compliance refers to “acting in accordance with an influence from the source” (Payan *et al.* 2005: 72). Actors are obliged to obey the regulation contents stipulated in their jurisdiction. They will be compared in terms of proper conduct to a formal description of the corresponding (legal) obligation (Lange, 1999). The process involves a requirement in mandatory reporting, site inspections and penalties (Hutter, 1997). However, the formal definition is different from the real scenario of regulatory compliance because compliance

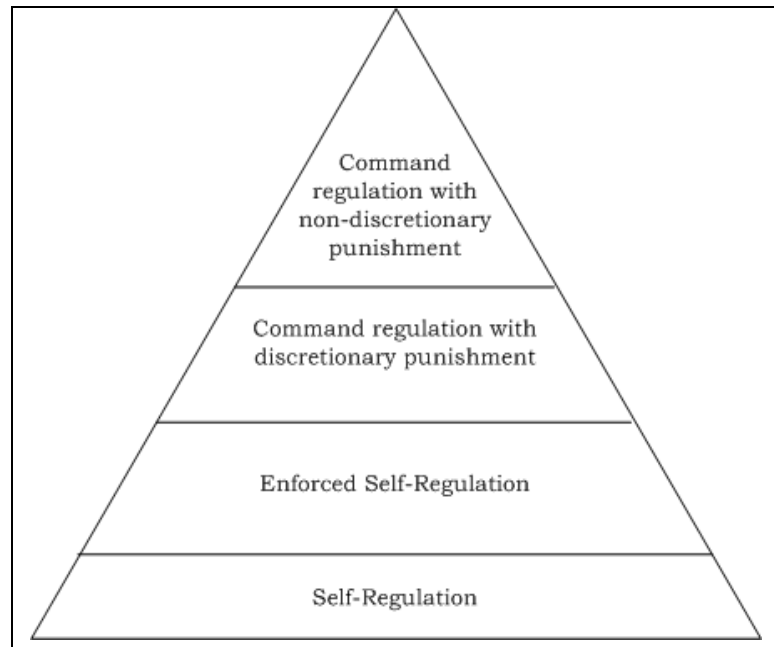
is considered as the process of negotiated outcome between a social actor and an enforcement officer (Fairman, 2005).

There are many models of compliance and enforcement to regulation. The traditional model of compliance and enforcement only describes two strategies known as ‘compliance-sanctioning’ (penalties) and ‘compliance-deterrence’ (punishment) (Reiss, 1984). Both strategies encourage a cooperative, problem-solving approach in an ongoing working relationship between regulators and regulatees. Regulators will only use punitive sanctions as a last resort because they are viewed as a failure of the regulatory system to achieve compliance. Both strategies however were not very instructive and useful in the design of real-world regulatory tools and techniques (Hawkin, 1984). Then, the model of ‘responsive regulation’ was introduced in early 1980s (Scholz, 1984). This model was developing further from ‘compliance-deterrence’ that will apply punitive sanctions at last resort but with an introduction of ‘regulatory forgiveness’. Regulators setting a minimal level of compliance where negotiation and cooperation strategies were put in place until regulatees agreed to comply in order to avoid non-compliance.

In a recent development, as a result of this classical thinking, scholars have revealed two approaches in regulatory compliance recognised as ‘enforcement pyramid’ (compliance from all regulators that starts at the base of the pyramid consist of persuasion and self-regulation to the top pyramid that consist of sanction and punishment) (Braithwaite, 2002) as shown in Box 3.1 and ‘smart regulation’ that has been practiced by most of authorities nowadays (Sigler *et al.* 1988, 1991).



### Box 3.1: Enforcement Pyramid



Source: Braithwaite (2002)

The 'smart regulation' presents a comprehensive approach to the design, implementation and enforcement of environmental regulatory requirements that include 'Interactive Enforcement Pyramid' and the influence from outside enforcement pyramid of both commercial and non-commercial (third parties) (Gunningham *et al.* 1999). However in any model, Parker (1999) argued that enforcement agencies must understand the difficulties of compliance and should make a right judgment about evaluation of compliance before they really present it to the regulatees where there are the real challenges from being questioned by public.

Modern regulatory forms often avoid the forcefulness of 'command and control' approaches and 'prescriptive rules' (how things are supposed to be/totally depending on rules) because regulated parties are more responsible for their own internal regulation and risk management (Parker, 1999). The model of 'command and control' is naturally considered as the best conventional way to represent disaster organisational preparedness and only applicable in an emergency situation where the military poses as the only choice (Drabek, 1986). This is a systematic rigid military concept that applies hierarchy in a highly structured social organisation (Dynes, 1983). Generally, the command and control model presumes that disasters create a remarkable instability with everyday life that lowers the effectiveness of individual behaviour and reduces the capacity of the social\_organisations

involved. According to this model, planning is the centre on the development of mechanism to control adaptation of individual behaviour and on the creation of ad hoc structures to replace the disruptive and non-functioning social organisation in the disaster area.

However, the vital role of the 'command and control' regulation is not practical in the today's 'regulatory mix' concept that involve participation of all authorities, agencies, NGOs and communities (Mazerolle, 2000; Ransley, 2002). Current regulatory forms encourage the approach of 'regulatory mix' that includes types of policy instruments, including policy through law with crucial input from regulatees. The 'regulatory mix' depends largely on the perception of legitimating within the political system and on the political actors that shape and drive the issues arise. This new regulatory concept invites other related parties such as:

1. NGOs and community participation (Mazerolle *et al.* 1998);
2. Introduces incentive schemes to the regulators such as promotion and professional expansion (Gunningham, 1999a; Brereton, 2003);
3. Has self-regulation base (that puts procedures in place and require particular activities so it can manage regulators' behaviour and effectiveness in terms of performance, organisation direction and compliance so regulation can deliver on its own priorities as well as those of government and regulators);
4. Has co-regulated with the support and guidance by the top level (Gunningham, 1999a);
5. Requires reports presentation (by regulators because report is critical to the process of identifying the needs from every parties involve in disaster situation) (Gunningham *et al.* 1999b).

This new good governance concept of 'new regulatory state' contributes to less 'rowing' but more 'steering' efforts (Osborne *et al.* 1992; Parker *et al.* 2003) because government should not stop running everything they in charge of rather should use legitimacy to create opportunities for public to act and contribute. They emphasise in empowering government agencies (two way interactions) rather than serving public (one way interaction).

Hence, efforts towards the term 'beyond compliance' such as regulations based on outcome (e.g. 'enforcement pyramid' and compliance culture establishment-attitudes

towards law-abidingness/adhering to the law and rule-following) are designed in order to achieve regulatory goals (Fairman, 2005). Even though, penalties and punishment were found to be the most effective towards higher regulatory compliance (Haines, 2002), more solutions should be found towards full regulatory compliance efforts because penalties and punishment technique is only a single set of regulatory goals and encourages 'prescriptive rules' and 'command and control'.

Thus, regulatory scholars began to focus their attention on researching compliance rather than deterrence and began to realise the importance of persuasion and cooperation as a regulatory tool for gaining compliance by adopting an accommodative process of regulation (willingness of institutions to adjust to differences from internal and external influences in order to obtain agreement in regulatory compliance) (Braithwaite, 1985) rather than by an assimilative process (people engagement in selective and self-regulatory activities based on the present internal capability of institution) (see also section 9.1.2, p.286). According to the 'accommodative model', regulatory agencies prefer to see themselves as 'social actors' (consultants-give advice about how to comply) through cooperation rather than as strict law enforcement (punishment). Regulatory enforcement tends to view regulatory compliance partly because of belief in the rule of law and partly as a matter of long-term self-interest (Scholz, 1984). The focus to be more oriented toward seeking results in compliance rather than looking for punishment from non-compliance.

### **3.3 Research in Regulatory Compliance**

Compliance plays a major role in jeopardising the management effectiveness and is still far from complete (Sutinen *et al.* 1990). Linder *et al.* (1987) notes that for the last decade scholars recognised that studies in public policies have been subjected to the way a government acts especially the federal government. Therefore, analysis regarding policies and government instruments were more towards consulting federal governments. Individual officers in the government are those who are responsible in shaping government's behaviours. Most likely, individuals prefer to achieve their own self-interests rather than organisational goals that can impose harm on others (Smith, 1759). Thus, when deciding whether to comply, self-interested individuals influence the potential illegal gain against the strictness and certainty of approvals (Sutinen *et al.* 1990). It was also encouraged that the

public be given bigger part contributing to issues toward institutional compliance (Ransley, 2002).

Sutinen *et al.* (1990) argued that recent research in psychology and sociology emphasises the importance of socialisation processes that affect behaviour. The key psychological theories to explain socialisation processes are divided into two parts that consist of cognitive and social learning elements (Kohlberg, 1969, 1976, 1981; Levine *et al.* 1977; Tapp *et al.* 1977). The theory in cognitive is more relevant to the individual developmental process. This theory emphasises the morality variable within an individual's personal and individual's moral development. On the other hand, social learning theory focuses primarily on the conditioning effects of the environment (Aronfreed, 1968, 1969; Bandura, 1969; Mischel *et al.* 1976; Akers *et al.* 1979; Akers, 1985). The key variable in the social learning theory is determining opinions according to perception of compliance from peers and the individual (see section 3.8.1, p.86) and social influences (see section 5.10, p.138). Thus, general hypothesis in rules and regulations chosen are related to individual internal and external capacity with influences from working environment (Akers, 1985) because researchers try to link socialisation process between individuals and society.

There are two essential perceptions in sociology literature on compliance known as 'instrumental' and 'normative' (Tyler, 1990). The 'instrumental' perspective is more towards individual self-interest and immediate changes respond, motivated by incentives and strictly obligated to punishment. The key variables determining compliance according to 'instrumental' perspective are the severity and certainty of sanctions. The 'normative' perspective emphasises what individuals consider truthful and honest, instead of what is in their self-interest. Individuals tend to comply with the law to the extent that they perceive the law as appropriate and consistent with their internalised norms. The key variables determining compliance in the 'normative' perspective are individuals' perceptions of the fairness and appropriateness of the law and its institutions (Tyler, 1990). Thus, compliance with a law or regulation is influenced by the extent to which individuals accept legitimacy in enforcement agencies. Legitimacy is compared to a normative (relating to standard/model) assessment by individuals of the appropriateness or right of enforcement agencies to restrict their behaviour. Compliance is higher when individuals carry out a high level of legitimacy and make constant normative assessment to the enforcement agencies.

### **3.4 Compliance Assessment to International Standards**

Even though it is impossible to achieve ultimate compliance, the system of regulation and enforcement only works if there is no major cause of concern from stakeholders and continuous efforts are being undertaken to improve it (Hutter, 1997). There are three stages of assessment in compliance systems:

1. Institution should identify and rectify related laws and other social responsibilities involve;
2. Institution would have determined the substantive (firm basis in reality and important) or considerable outcomes that the assessment guideline is guaranteeing (or at least improving) the institution accomplishment of the regulation objectives (e.g. product safety, environmental health in the local area and worker health);
3. Whether the institution is utilising its own outcome monitoring tools in designing and improving its own compliance system (Johnston, 2004).

If there is no internal assessment tool available, the institution will normally turn to international standards.

ISO 9000:2005, ISO 9001:2008 and ISO 9004 in quality management systems are some of the standards produced as a result of the international standards restriction by 'The International Organisation for Standardisation' (ISO) (ISO, 2009). The organisation officially disseminates global industrial and commercial proprietary standards. They are also an official consultant appointed by company or organisation and certain governments. However, the compliance application is still much influenced by the present system of a country (Oke *et al.* 2007) such as:

1. In Australia, the subject of compliance and its demand is increasing. The revised '2006 AS 3806-Compliance Programs' is the main reference according to the Australia Standards (AS, 2006). The new compliance regime requires companies to have enough resources (e.g. human, technology and financial) and skills in order to strengthen and establish a risk management system. There are some changes to cover additional principles' in aspects from the original 1998 standards. The Australian regulators are encouraged to endorse the standard practicality when establishing a compliance framework by regulation (Parker *et al.* 2006).

2. In the United Kingdom (UK), some restrictions are governed by legislation in the European Union. Various bodies claim to have responsibility to monitor regulatory compliance such as the 'Financial Services Authority' (FSA), 'Environment Agency and Scottish Environment Protection Agency' and 'Information Commissioner's Office'. Mainly, the 'Data Protection Act 1998' covers important compliance issues for large and small organisations. The 'Freedom of Information Act 2000' covers for the public sector (Warren, 2001).

Meanwhile, approaches to risk have a wide diversity in the UK government within and between institutions. The Health and Safety Executive (HSE) in the United Kingdom develop 'Risk Strategies Tolerability' that combine qualitative and quantitative aspects (Baldwin *et al.* 2001) in order to measure probability of risk of non-compliance with legislation framework in the UK. Risk assessment procedures are encountered across the UK government, with emphasis on assessing potential hazards such as infringements, inflexibility and a lack of responsiveness in civil rights. However, not all countries try to assess risk in regulatory compliance. Only a few countries have a history of formally incorporating risk in regulatory policy and have developed institutional frameworks to support this. Only the United Kingdom and Iceland reported requiring risk assessment for all regulation (Burgess, 2009). The European Union (EU), the United States of America and Australia reported that it is required for major regulation and a number of other countries like Japan and Korea reported that it is only required in non-specified selected cases only (Burgess, 2009).

### **3.5 Enforcement of Disaster Planning Framework**

White (1996) has noted that a particular weakness of public policy formulation is the failure to learn from experience with existing policy. Essentially, public policy in disaster recovery planning must be concerned with planning to respond to disasters, rather than planning to mitigate or prevent them (Wisner *et al.* 2002). This policy is needed at "national, provincial/district and local levels to ensure that common goals are set and common approaches are used. Without a shared (distributed) disaster management policy that applies to all relevant sectors and all levels, prevention, preparedness and response are likely to be fragmented, badly coordinated and ineffective" (WHO, 1999: 4).

Developing and monitoring policies for disaster management requires an active process of analysis, consultation and negotiation. This process should involve consultation among a wide variety of institutions, groups and individuals. The outcome from the policy should reflect society's definition of the limits of acceptable risk and its commitment to protecting vulnerable populations. This policy should also result in a clear definition of the roles and responsibilities of all the partners in emergency management. Therefore, there is a need to examine a policy framework in crisis and disaster that allows a better understanding in decision making (Wisner *et al.* 2002).

As argued by Wisner *et al.* (2002), in many countries other than the country with ad-hoc programme approach in disaster management, the policy in disaster management is purposely formulated in order to identify hazards and their possible effects on communities; activities or organisations and their prevention capability; and response to disasters. The range of issues in disaster management policy development should be addressed holistically from every parties involve. They are the issues of:

1. In emergency preparedness and development planning;
2. National emergency law and other relevant enabling legislation;
3. National emergency management organisation, responsibility and the major mission of National emergency management organisation;
4. Tasks of the emergency management organisation;
5. Community and provincial emergency preparedness;
6. Health sector emergency preparedness; involving other groups, management and citizens in emergency;
7. Managing resources, evaluating an emergency preparedness and response programme;
8. Priorities in implementing emergency preparedness (WHO, 1999).

The framework in disaster planning should be able to complement the concepts of these present 'disaster management' issues (Barton, 1969; Tierney, 1993; Quarantelli, 1997; Tierney *et al.* 2001). Thus, the framework may facilitate the formulation of effective policy in disaster risk reduction crisis (Pennings *et al.* 2008) because the framework expectedly resolves the main issues in disaster management by processing adequate information and correct decision-making (Quarantelli, 1997). The framework requires

appropriate utilisation by community members in the scene of disaster through effective management process (i.e. social, psycho-social and cognitive decision making) (Tierney *et al.* 2001).

Scholars had suggested that coordination and communication might be best to be implemented in order to distribute adequate information in disaster management more effectively and realistically (Mileti *et al.* 1990; Quarantelli, 1990; Mileti *et al.* 1992). Communication is important in disaster because it will end up establishing bodies of work in disaster management and generating unanimous decision making in emergency circumstances (Fritz *et al.* 1954a; Fritz, 1961; Barton, 1969; Drabek *et al.* 1969; Dynes, 1970; Sims *et al.* 1972). Decision maker has to consider two dimensions of decision making process (post-disaster) (see section 2.4, p.22, p.3) to respond to potential of risk (see section 2.8, p.42) based on existing disaster plan:

1. It refers to the content of risk (immediate impacts such as hygienic, injuries and resources supplies) and likelihood exposure of disaster community to it;
2. The secondary impact that would have greater impacts (impoverishment or psychosocial effects).

The second dimension reflects the likelihood of the risk content that actually becoming obvious in disaster scenes. This likelihood can either be known or unknown) and depends on how well the disaster community is prepared for it (Pratt, 1964; Arrow, 1971; MacCrimmon *et al.* 1986; Slovic, 1987; Pennings *et al.* 2004). Thus, authorities with access to the planning framework have to make sure the programme is benefiting the disaster community in order to reduce risk and overcome challenges in implementing it.

### **3.5.1 Policy Implementation and Challenges**

Decisions as regard to any policies is known as the 'implementation' process (Pressman *et al.* 1973). Dunsire (1978) introduced two perspectives as the sensible approach for an ideal administration and policy implementation. First, the manager and other superiors apply the 'top down perspective' that encourage them to implement policies rather than providing written plans. Simultaneously, the wave of enforcement should move backwards that involves the lowest level of organisation known as 'The bottom up perspective' (Yates, 1977; Lipsky, 1980). This 'street level bureaucrats' approach requires more understanding



to the real situation and which policy needs to be put in place (Peters, 2001). As suggested by Hjern *et al.* (1982), the main aspect to measure the level of success in policy implementation must consider local control rather than hierarchy. Therefore, a number of policy involvements in political systems are apparently challenging.

The multiplicities of rules that govern a regulatory framework consist of civil and criminal laws, regulatory statutes and codes of conduct that administer the practicing bodies (Johnston, 2004). Foremost, regulators focus on the outcomes as a result of the accomplishment of regulatory aims. This is the type of governance concerning the culture of compliance with prescriptive rules (Black, 1997; May *et al.* 1998). However, Parker (2002) encouraged regulators to allow some flexibility in order to achieve greater outcomes.

Flexibility in regulatory practice creates a growing uncertainty regarding the state of designing or understanding policy implementation due to conflict in dealing with crime accusation, misconduct and dishonesty (Linder *et al.* 1987). The conflict is the subject of political issues and not an activity caused by technical measures. The issues are always in relation to responsibility and the risk to misconceptions of 'political contests' (preference adaptation). Even the political pressure is a nature of any industry (Hancher *et al.* 1998; Haines *et al.* 2003) it still depends on how well the organisation encounters the issue of regulatory techniques in this political challenge.

Thus, scholars suggested that a successful administration with successful policy implementation must be steered by a focused leader (Hopkins, 1995) that keeps away from using only rigid (prescriptive) regulations (Sitkin *et al.* 1994; Black, 1997; Parker, 2002); encourage advance self-regulation (Ayres *et al.* 1992); committed towards promoting compliance culture as a priority in organisation (Gunningham *et al.* 1999a; Parker, 2002); launching regulatory aims and business goals simultaneously (Parker, 1999); and supported by other additional aspects like penalties and punishments for non-compliance (Ayres *et al.* 1992). However, a combination of these aspects may still lead to conflicts because of under or over reacting or expectation towards regulatory outcome.

Hood (1976) found out that there are three options in order to come across the failures in administration:

1. Failure in implementation due to disruption during the process of implementation. At this stage the failure occurs either intentionally or accidentally depending on the official's determination to comply with circulated instruction or law.
2. Failure at design stage that involves programme formulation. As argued by Hogwood *et al.* (1985), some programmes are simply 'crippled at birth' because the policy itself was not competent.
3. Stage of failure to achieve organisational target in implementing policies because in some cases organisational and regulatory aims are different. For example, different institution carry different target in humanitarian works (e.g. political interest, gender discrimination and profit base) and deflect the main target in certain development projects.

Sieber (1981) notes that efforts in relief are more difficult compared to other normal planning (e.g. higher education, labours) because implementing disaster planning and recovery must consider immediate action, interaction and co-ordination rather than planning a perfect design.

### **3.5.2 Relief Co-Ordination**

Coordination always involves an organised direction of activities before, when disaster occurs and after the disaster. However, weak co-ordination is considered as a barrier in emergency management and was found as a major issue in disaster response (Carter, 1979; Tierney, 1985; Heide, 1989). Co-ordination requires efficiency in disaster planning, effectiveness in relief works and knowledge exchange amongst relief workers and victims. The present standard of co-ordination is considered insufficient due to inadequate disaster resources (e.g. managing the flow of goods, information and finances) that remain as key principle in disaster operation (ProVention Consortium, 2004).

Simultaneously, scholars argued that the degree of relief co-ordination by many international governmental and non-governmental organisations is not sufficient to effectively meet the needs of disaster victims (Hogg *et al.* 1988). Affected countries, as well as the governmental agencies and non-governmental organisations still lack a strong relationship and networking especially with other international communities (Kent, 1987).

Without national and international coordination, delays in disaster response may occur due to repetitions of effort and limited exchange of information and technology (Canter, 1989).

Normally, the contacts among relief workers are often difficult (Minear *et al.* 1995) because information is generally lacking in the scene of disasters (Quarantelli, 1988). The loss of power and phones lines and destruction of transportation networks limits communication between humanitarian organisations and victims and among relief workers themselves. Thus, there is always a dilemma in local, national and international governmental and non-governmental agencies at the disaster scene concerning abundance of relief efforts by aid agencies (Cuny, 1983). It is often unknown that resources are available and even the involvement and contribution of suppliers is unpredictable. This creates many redundancies and duplicated efforts and materials (Simpson, 2005). This scenario is chaotic and creates difficulties in order to make any changes and improvement in relief works (Heide, 1988). This confusion happens because of a failure to communicate and understand their own strengths, resources, roles and responsibilities in disaster works.

Meanwhile, co-ordination in relief works is also ineffective due to different objectives and values from NGOs in providing relief. As argued by Minear *et al.* (1995), international organisations have to consider their own programmes in disaster relief. They pose themselves as international relief bodies but always give priority in pursuing their own objectives for example, promoting their own brand and commercial agendas. As a result, the humanitarian works turn to self-interest in the name of relief works. The real relief workers from local and national organisation unanimously disagree with the nature of this adopted emergency approach (Minear *et al.* 1995).

The relief organisations also struggle when it comes to budget allocations in running any humanitarian works (Guarnizo, 1993). Without financial support, any humanitarian work meets with a dead end. Funds in these cases depend upon charities and donations and organisation reserves. In some cases, organisations seem even keener in collecting funds and donations rather than encouraging humanitarian works. They put their name within the international system rather than the international relief network. Consequently, disaster victims are the real victims here not only from natural or technological behaviour but also human behaviour (Kent, 1987). Thus scholars suggested that there is a need for more 'collaborative problem solving' in the response of institutional disaster risk reduction (Mileti, 1999). This collaboration (national and international) should

concentrate on consultation and understands roles and responsibilities between agencies involve (Clapton *et al.* 2006).

This collaboration will also encourage exchange of technologies (e.g. rescue equipment, early warning systems and building constructions and materials) in order to reduce immediate and future impacts by reducing the vulnerability of the people and societies involved. Unfortunately, lack of opportunities exists among relief workers especially government officers to utilise knowledge in technology transfer due to distractions from other components of a post-disaster reconstruction project (Barakat, 2003). Berman *et al.* (2007) notes that organisations that work in disaster relief and post conflict reconstruction focused on non-housing sectors as the first step to livelihood like governance issues; donations; budget; disease control; violence and armed conflict; and social capital because housing is the last resort after all considerations are resolved.

On the other hand as argued by Christoplos (2006), shelter/housing is the primary protection for disaster victims from hazards in the scene of disaster. Unfortunately, officials underestimate specific challenges at the disaster scene because in any post-disaster planning and recovery, reconstruction of infrastructure and housing is the main indicator to measure the outcome of risk reduction (Christoplos, 2006). Compliance with regulations (e.g. building codes and planning acts) and technology requirements is the key to higher hazards resistance. For example, an effective design of earthquake-resistant buildings especially to the enactment of effective seismic-design regulations would have safer protection even still remained seismically vulnerable in earthquake regions (Bruneau, 2002).

### **3.5.3 Dilemma in Assistance to Post-Disaster Housing**

Sauders (2004) found that the major topics of discussions amongst disaster workers and policy makers in response to post-disaster recovery were based on the issue of actors getting the wrong idea about the terms of shelters; inappropriate terminology used; uncertainty in project projections; unproductive communication between disaster workers especially in technical support; improper approach to merge resources to local context; policy development implementation; lost leadership direction; and the insufficient initiative to merge livelihood features. It was suggested that disaster community look at the international solutions in terms of consultations and guidelines (handbook) (Crawford,

2002). Besides of the main reference (e.g. the UNHCR Handbook for Emergencies and The SPHERE Humanitarian Charter and Minimum Standards in Disaster Response), there are many other guidelines that will be selected depending on situational issues and suitability. There are at least 15 international bodies that have been contributing to the shelter sector over the last 24 years, including UN agencies, NGOs, training organisations, university departments and individual experts as shown in Table 3.1.

**Table 3.1: Guidelines in Disaster Response**

<b>Year</b>	<b>Publisher</b>	<b>Title</b>
1978	Oxford Polytechnic press	Shelter after Disaster, Ian Davis
1979	OXFAM	Lessons learnt by Oxfam from their Experience of Shelter Provision, Disasters Vol. 3
1981	OXFAM	Plastic Sheeting: Its Use for Emergency Housing and Shelter
1982	UNDRO	Shelter after Disaster
1985	Intermediate technology	Modern Stoves for All
1986	Ross institute	Small Scale Sanitation
1993	Intermediate technology	Appropriate Building Materials
	UNHCR	First International Workshop on Improved Shelter Response and Environment for Refugees
	Intermediate technology	Field Engineering
1994	UNHCR	People Oriented Planning at Work
	UNICEF	Assisting in Emergencies
	MSF	Public Health Engineering in Emergency Situations
	ITDG/REDR	How to Make Low Cost Building Blocks
	UNHCR	Shelter and Infrastructure: Camp Planning. Programme and Technical Support Section
	MSF	Feasibility Study Alternative Shelter Materials
	USAID	Field Operations Guide
	Shelter Project	RedR Construction in Emergencies Handouts
1995	OXFAM	The Oxfam Handbook of Development and Relief Vol. 2
	MSF	Shelter International Research Project
	Intermediate technology	Rural Building Course
	North Africa Institute	Shelter Provision and Settlement Policies for Refugees, Studies on Emergency and Disaster Relief
1996	OXFAM	Water, Sanitation and Shelter Packs
1997	UNHCR	Environmental Guidelines. Domestic Energy Needs in Refugee Situations
	UNDP	Emergency Relief Items
	MSF	Refugee Health An Approach to Emergency Situations
	RRN	Counting and Identification of Beneficiary Populations in Emergency Operations
	MSF	Guide of Kits and Emergency Items
1998	UNHCR	Refugee Operations and Environmental Management
	MSF	Logistic Catalogue
	RRN	Temporary Human Settlement Planning for Displaced Populations in Emergencies
1999	Shelter Project	Cold Climate Emergency Shelter Systems, A Research Project for Humanitarian Organisations, Manfield and Corsellis
2002	ITDG/REDR	Engineering in Emergencies
	RRN	Babbister
	SPHERE	Sphere Project Handbook

Source: Crawford (2002)

However, agencies suggested that states utilise local solutions and procurement instead of prefabricated or imported shelter with the use of international guidelines as reference (Crawford, 2002). The biggest problem is that the bureaucracy's ability at national level to convince officials of the importance of international standards in the international context (ProVention Consortium, 2004). Officials usually want something more definitive from government in terms of clarification (dissemination of information) to the importance of international specification (standards) that is accepted and endorsed (based on previous empirical experiences) on a world-wide basis (Davis *et al.* 2002). Users of standards also want something that can make outcome distinctions based on a unanimous understanding (official announcement or endorsement) over the use of international specifications in a national context because they will give some assurance that their efforts, resources and trusts will provide positive results.

However, each disaster situation is unique and requires distinctive (different) proceedings. The dilemma in disaster response is not only limited to producing a well-planned settlement based on the present legal infrastructure but also a solution for people to 'bounce back' in the direction of normal life or even better (Corsellis *et al.* 2005). Thus, Johnson (2002) introduced two specific considerations in order to provide a solution for temporary accommodation:

1. The potential of the particular community's human and financial resources;
2. The possibility of project durability (hazard resistant and constructive livelihood).

Efforts in relief assistance should focus on the approach to utilise optimum resources and sustain project durability. Generally, national relief programmes (disaster plan) comes with a complete legal infrastructure inspired by national and international experiences (Corsellis *et al.* 2005). From this notion, the only way to comply with the specific requirement in providing temporary accommodation is by establishing collaboration between emergency reliefs and mechanism in rehabilitation; and to implement planned programmes (Chalinder, 1998). This productive solution and atmosphere enables stakeholders to adopt appropriate recovery strategy and meets the need of the population. Thus, scholars suggested that the approach in housing resettlement should be based on the reason why houses are provided (Turner, 1977; Burgess, 1978).

The understanding concerning housing as a product and as the process of achieving those products is vital mainly in terms of temporary shelter before reconstruction of permanent housing (Davis, 1987). There are always arguments between the term 'housing' compared to 'houses'. "In English, the word 'housing' can be used as a noun or as a verb. When used as a noun, housing describes a commodity or product. The verb 'to house', describes the process or activity of housing" (Turner, 1972: 151). John F.C. Turner has been the most influential writer about housing in the developing world in the post-war period (Harris, 2003). John F. C. Turner (see section 3.7, p.78) went to Lima, Peru to work in the 'Barriadas' (squatters housing) that inspired him to develop his own housing theory. The 'empowerment' (participation) of local people is significant and should be sufficient in the process of redevelopment (Turner, 1977; De Soto, 2000). Housing should be treated as a process rather than simply a product. "There is a difference between a concern with houses and a concern with housing, whereas houses are cultural and social objects and consumables, housing is a cultural process and a social activity" (Robbins, 1989: 58).

### **3.5.3.1 Emergency Housing**

Emergency housing or temporary accommodation refers to disaster-affected families' provisional place to stay at the earlier stage of disaster until they get permanent housing (Corsellis *et al.* 2005). It is actually the period of physical, social and emotional recovery in rehabilitation phase. Unfortunately, rehabilitation is often overlooked by related agencies to the rights of disaster victims (Blaike *et al.* 1994). Blaike *et al.* (1994) suggested that there are two simple steps of approach (other than complicated) in providing emergency housing that are the approach to satisfy the individual family and then the community as a whole. These approaches acquire ambitious plans of community reconstruction, disaster victims' participation, guided self-help construction and holistic measures of development (Lizarralde, 2000).

Literatures as shown in Appendix 8, p.340 (e.g. Anderson *et al.* 1998; Bhatt, 1999; Lizarralde, 2000) provide for a wider angle of post-disaster reconstruction theories that emphasise the response according to phases concerning social aspects of the housing reconstruction process. They note that housing is an industrialised product that is provided to the affected community. However most cases of post-disaster reconstruction revealed unachievable project missions and dissatisfaction results within the last three decades

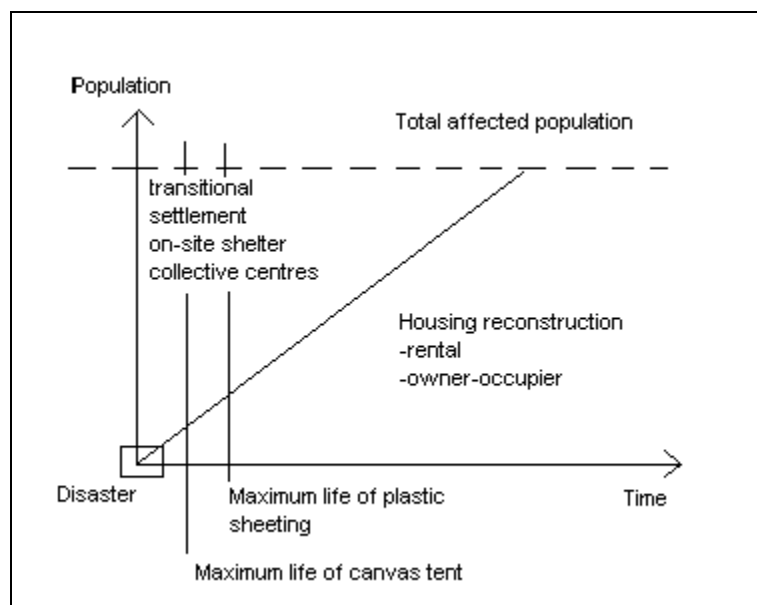


because disaster community exclude the fact that housing the victims after disaster is also the work of providing houses to the community as a whole (Lizarralde, 2000). The rights to housing however preserved in the international legislations to the rights of adequate housing (see section 3.6.2, p.76).

‘Shelter after Disaster: Guidelines for Assistance’ is the first guide on shelter and housing inspired from diverse 1970s disasters experience (UNDRO/OCHA, 1982). Unfortunately, very limited supplementary work has been done in order to enhance the use and content (UN/OCHA, 2006). The ‘transitional settlement: displaced populations’ draft was then produced as a result from the revised version between 2002 and 2004 in order to inspire new ideas in risk reduction response (Corsellis *et al.* 2005). According to this guide, the term ‘emergency management’ typically means a major focus on the preparedness and response phases of disasters.

The use of ‘disaster plans’ frequently refers to the full range of activities from mitigation through recovery (Quarantelli, 1984). However, the summary guidelines that include entries on the shelter sector and that are published by most operational organisations (international specification) do not have a significant body of literature to refer to, and found to have repetition of a few key guidelines (Crawford, 2002). Consequently, the operations guidelines was introduced in order to avoid confusion in emergency housing over the meanings of commonly used terms such as ‘emergency shelter’, ‘temporary shelter’, ‘temporary housing’, ‘permanent shelter’, ‘dwellings’, ‘housing’, ‘building’, ‘recovery’ and ‘reconstruction’ as shown in Diagram 3.1 (Corsellis *et al.* 2005).

**Diagram 3.1: From transitional Settlement to Housing Reconstruction, Shelter Centre**



Source: Corsellis *et al.* (2005)

These terms are commonly use from transitional settlement phase (tent, temporary shelter) to permanent housing reconstruction phase (from the period of disaster impact to project accomplishment) in order to find an easier situation to describe, support and integrate its contribution for a wider response.

Simultaneously, states also facing with dilemmas in implementing national rules and regulations. For example, the Royal Institute of British Architects (RIBA) has identified the key issues, as overlap and conflict with other legislations, with recommendations for improvements to United Kingdom building regulations; increased complexity and lack of clarity and consistency; increasing reference to third party legislations to British Standards (e.g. Buildings Regulations 2000 and design of structures to BS EN 1991-1-7); robust detail and trade association guides; implementation of new regulations; and self certification of electrics and plumbing by accredited people (RIBA, 2006). The building regulations have lost their clarity and effectiveness over the past two decades since 1986 (Crawford, 2002). The conflict of standards-guidelines and enforcement of the regulation by the enforcers will make assistance in disaster not like what the victim expected.

Recently, the Sphere Handbook outlined key dilemmas and challenges (summarise in Table 3.2) faced by humanitarian agencies concerning issues emerged in providing accommodation in disaster scene. This handbook is the most considerable because the

operational organisation (the ‘Sphere Project’) keeps updating from time to time (Crawford, 2002). ‘InterAction’ from the United States of America memberships and the Steering Committee for Humanitarian Response (e.g. Care International, Caritas Internationalis, the International Committee of the Red Cross, the International Federation of Red Cross and Red Crescent Societies) constituted a project called Sphere Project in 1997 for setting the standards in this guideline that contribute to an operational framework for accountability in disaster assistance efforts.

“Sphere is based on two core beliefs: first, that all possible steps should be taken to alleviate human suffering arising out of calamity and conflict, and second, that those affected by disaster have a right to life with dignity and therefore a right to assistance. Sphere is three things: a handbook, a broad process of collaboration and an expression of commitment to quality and accountability”.

(Sphere Project, 2004: 5)

This ‘Humanitarian Charter and Minimum Standards’ is based on the principles and provisions of international humanitarian law, international human rights law, refugee law and the Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organisations (NGOs) in Disaster Relief. This handbook identified minimum standards to be attained in disaster assistance, in each of five key sectors (water supply and sanitation, nutrition, food aid, shelter and health services). The matrix in Table 3.2 describes the handbook reviews.

**Table 3.2: Handbook Review**

Publisher	SPHERE		
Title	British Red Cross Annual Review 2000 plus 2000 Trustees' Report and Accounts		
Date	2000		
Description	This guide is set out as a series of sections each specifying minimum standards and offering key indicators and guidance notes. It refers too many of the key texts discussed in this report and works through detailed steps to carry out, for example, a needs assessment. Effective disaster response is set out as a process and much emphasis is put on not operating in isolation from other over-arching sectors like logistics.		
Common standards	1: Participation (e.g. local capacity, communication and transparency and sustainability) 2: Initial assessment (e.g. checklists, assessment team and sources of information) 3: Response (e.g. meeting the minimum standards, capacity and expertise) 4: Targeting (e.g. targeting mechanisms and monitoring errors of exclusion and inclusion) 5: Monitoring (e.g. use of monitoring information and information sharing)		
Shelter and settlement standard	1: Strategic planning (e.g. return to home; land and building ownership; and natural hazards) 2: Physical planning (e.g. access to shelter locations; and access and emergency escape) 3: Covered living space (e.g. safety and privacy; duration and climate context) 4: Design (e.g. materials and construction; and ventilation and participatory design) 5: Construction (e.g. sourcing of shelter materials; and labour and construction standards) 6: Environmental impact (e.g. sustainability and the management of environmental resources)		
Key advise	1: Standard, indicators and guidance notes 2: 3.5-4.5 m2 per person in a shelter 3: Kit list of utensils, tools and soap 4: 45 m2 per person in a camp 5: Minimum space between dwellings and site gradient 6: 1 km2 of forest could serve up to 500 people 7: Annual fuel wood consumption 600-900 kg per person		
	Need	Implementation	Response
Policy	3 scenarios: people stay at home; people are displaced and stay in host communities; and people are displaced and stay in clusters		
Process	Standard	Indicator	Guidance
Priorities	Analysis (needs assessment) monitoring, evaluation and consultation	Site selection, planning, security and environmental concerns	Housing, living quarters, clothing standard, household items, livelihood support and environmental concerns

Provision		Human resources, competent staff and local capacity													
Pie chart showing handbook structure	<table><caption>Handbook Structure Data</caption><thead><tr><th>Category</th><th>Percentage</th></tr></thead><tbody><tr><td>Food and Nutrition</td><td>38%</td></tr><tr><td>Health</td><td>23%</td></tr><tr><td>Shelter</td><td>16%</td></tr><tr><td>Water and Sanitation</td><td>19%</td></tr><tr><td>Preamble</td><td>4%</td></tr></tbody></table>			Category	Percentage	Food and Nutrition	38%	Health	23%	Shelter	16%	Water and Sanitation	19%	Preamble	4%
Category	Percentage														
Food and Nutrition	38%														
Health	23%														
Shelter	16%														
Water and Sanitation	19%														
Preamble	4%														

Source: Crawford (2002)

This guideline describes the core principles that govern humanitarian action and restore the right of populations affected by disaster and live with dignity. Other guidelines contents are considered as being repetitive of a limited number of basic principles, not making coherent sense and consistent progress over time, being difficult to source and generally outdated (Crawford, 2002).

Practically, there is a need to have a consolidated international assistance in housing provision especially to assist less-develop nations with their own capacities if possible to reduce hazards and vulnerability as well as strategies designed to protect the environment and to improve economic growth, levels of education and living conditions of the entire population (Brown, 1979; Drabek, 1986; Burton *et al.* 1993; Guarnizo, 1993; Dynes *et al.* 1994). Once the relevant authorities are unable and/or unwilling to fulfill their responsibilities, they are obliged to allow humanitarian organisations to provide humanitarian assistance and protection as stated on the Humanitarian Charter and Minimum Standards (Sphere Project, 2004).

Most scholars conclude that development is the solution in solving disaster problems and that the level of satisfaction in development and level of satisfaction to meet certain needs of disaster victims are related (Drabek, 1986; Burton *et al.* 1993). The United Nations also looks at any development as an important objective in relief assistance (Lechat, 1990). However, the reduction of disasters in any development comes along with both benefits and flaws. The benefit of any legitimate development might be seen as guided by international legislations. Due to the provision of development and reconstruction,

compliance with the law is the only way to deliver better enforcement techniques. Unfortunately, uncertainty in an international legal context and lawmaking is also contributed to a dilemma in relief assistance especially to the framework convention on victims' rights to adequate housing.

### **3.6 International Legal Context in Shelter/Housing Sector**

A consideration of appropriate and specific legal tools is beyond the scope of the guidelines provided by the international treaties. International guidelines only present the legal context for the implementation of emergency housing 'responses' and do not represent a law (Corsellis *et al.* 2005). The guidelines highlight some of the legal considerations that should be taken into account when planning settlement strategies, programmes and project matters. These guidelines outlined are based upon the consideration of law and human rights. It is important to reflect these guidelines on advocacy tool (e.g. presenting proposals to states authority or negotiation to relevant agencies), to understand the socio-political in the context of regulatory awareness and also to understand the rights of affected groups in legal context (Corsellis *et al.* 2008). Hence, there is a need to develop laws further, on both national and international levels, in order to deal with several aspects of emergency housing (Corsellis *et al.* 2005).

The international guidelines (SPHERE Handbook, Oxfam and UNHCR) provided are the simple documents of instructions (Corsellis *et al.* 2008). These guidelines related to the reasons for considering the law and human rights. In these numerous legal documents the terms 'shelter' and 'housing' are highlighted concerning emergency housing. Unfortunately, the definition of shelter is not legally binding (Corsellis *et al.* 2005).

However, according to the United Nation Declaration, shelter and housing matters in the context of emergency can become binding if the particular social setting established patterns of behavior known as 'customary law' is achieved and community/agencies utilise human rights law as an advocacy tool (Corsellis *et al.* 2005). 'Customary law' is recognised, not because it is backed by the power of some strong states' individual or institution, but because each individual in community/agencies recognises the benefits of behaving in accordance with other individuals' expectations. Fuller (1969) proposed that 'customary law' might best be described as a 'language of interaction'. A 'language of interaction' is necessary for people to effectively engage and expect meaningful social

behaviour to increase the happiness or diminish the misery of other people (Fuller, 1969). This type of interaction can only be accomplished by establishing clear (although not necessarily written) codes of conduct, enforced (generally acceptable by community/agencies) and supported by common laws (legal sanctions). Although, according to this understanding there is still no clarification concerning the status of rights of an individual in a community after disaster.

The Universal Declaration of Human Rights in 1948 is the first international law commonly promulgated by the United Nations. Subsequently, other international covenants and conventions, codes, rules, principles, guidelines and standards were developed. Some of the most important international laws with regard to the status of rights to emergency housing sector are those relating to human rights and housing rights. There are many international laws that could relate to the status of rights to displaced people in an emergency when responding to the issue of the peoples' rights to adequate housing such as:

1. The 'Committee on Economic, Social and Cultural Rights' (CESCR) notes that there is a connection between housing law and emergency housing concerning forced evictions for refugees and IDPs (CESCR, 1997);
2. The 'Agenda 21' in Section 7.6 describes that "National and international action should be a fundamental in creating access to safe and healthy shelter is essential to a person's physical, psychological, social and economic well-being" (Earth Summit, 1992: Section 7.6);
3. The UNHCR notes that "Having a secure place to live is one of the fundamental elements for human dignity, physical and mental health and overall quality of life, that enables one's development" (UNHCR, 2004: 2).

Based on these statements, countries affected should be obligated to give fair treatment to all displaced people (Corsellies, 2005). However, law stipulated by the international communities concerning human rights in order to implement durable solutions for transitional settlement is still not enough because legal action is under states jurisdiction.

The traditional position at International Law was that self-governing independent states were free to treat their own nationals as they chose without threat of external interference (IC, 2002). However, recent developments in International Criminal Law

affirm that the advances of international human rights law have decided that a state's treatment of its own nationals as also an issue of international concern (IC, 2002). Any sorts of infringement to the international legislations by any states (especially the UN members) in the international convention are liable to be judged within any existing international statutes capacity such as:

1. The 'Statute of the International Tribunal for the Persecution of Persons Responsible for Serious Violations of International Humanitarian Law Committed in the Territory of the Former Yugoslavia Since 1991';
2. The 'Rome Statute for the Establishment of a Permanent International Criminal Court (1998)';
3. The '1977 Geneva Protocol 1 Additional to the Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts' (IC, 2002).

The International Criminal Tribunals and Special Courts (e.g. in Rwanda and Yugoslavia) where's Rome Statute entered into force on 1 July 2002, has currently jurisdiction for genocide, crimes against humanity and war crimes. However, Wilkins *et al.* (2006) argued that there is no such thing as an explicit, universally agreed definition of 'international law crimes' in treaty law except in 'customary international law' that has to be refined such as war crimes in the '1949 Geneva Conventions' and prohibition against torture in the '1984 Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment'. Thus, there is no final concept and certainties in international humanitarian law regarding protection to the displaced people in emergency or disaster (Wilkins *et al.* 2006).

Even the practical application and enforcement of human rights in the field in emergency situations is often difficult due to certain country's internal political reasons (Coursellies, 2005). These might be the crises in public sector, failures of policy and crisis to response to this policy (Gray *et al.* 1998) because one of the main issues in implementing a disaster programme is the liability to disaster community. As argued by Drabek (2000) liability is the principle legal issue that arises from administration of a disaster management programme. There are a wide range of legal issues confronting disaster management community. Both decision makers and operation personnel need to increase their



understanding of potential liability associated with emergency actions. It is essential that emergency managers are aware of the principle areas of potential conflict between disaster management actions and statutory or constitution rights because strict liability means no flexibility (to promote compliance) (Parker, 2002; Comfort *et al.* 2006).

Thus, under ‘customary law’, offenses to codes of conduct in an organisation’s operation are treated as ‘torts’ (private wrongs or injuries) rather than crimes (offenses against the state or the ‘society’) (Fuller, 1969). In addition, strategies (reduce/avoid liability) need to be devised for legal reform in numerous areas, ranging from decisions to issue warnings to ‘Good Samaritan’ legislation in order to increase support from a disaster community in a disaster programme. The ‘Good Samaritan’ doctrine is a legal principle. According to this principle, rescuers are free from prosecution or consequentially being sued for ‘wrongdoing’. This acknowledgement has been done in order to encourage voluntary work and humanitarian responses. Therefore, this doctrine was mainly developed for first aid providers and humanitarian assistance at a disaster scene (Drabek, 2000). Still, the best protection against infringement/violation of rights is to ensure that regulatory measures are implemented by the disaster community and enforced fairly (Anderson *et al.* 1991a) even though some actors in disaster scene have regulatory flexibility (lenience or forgive).

### **3.6.1 The Human Rights Violation in Disaster Scene**

As stated by the ‘International Federation of Red Cross and Red Crescent Societies’ (IFRC) in the ‘Article 25 of the United Nations Universal Declaration of Human Rights’, “every world citizen has the rights to health and well being and the rights to security in the event of disaster under such circumstances beyond (his or her) control” (McEntire, 1997: 222). Any action that leads to the ineffectiveness of disaster response is considered as a violation according to this international norm. However, the support from major dominant players in the world within the United Nations Security Council always leads to frustration due to different ideological battles and veto powers [e.g. in the absence of a right decision to solve the Cold War caused millions of live (Borton, 1993) and domination in deciding the United Nations Security Council Resolution, 2002 (Richardson, 2003)].

The studies in disaster management show that human rights are often exploited more during calamities (Conway, 2002). Research shows that many political leaders refuse to admit that their nation has been affected by disaster (Portsea, 1992). Penetrations by the international community in humanitarian works depend on a willingness of the nation's governments to accept assistance in order to save face and avoid displaying their weaknesses and inabilities to neighbouring countries. Then, even if aid is received after a calamity, nations may violate the rights of their citizens by distributing relief preferentially (Bommer *et al.* 1987). Often the pressure of time, limited contingency budget and people's needs counteract the demands of quality and suitability (e.g. amenities and service provided) (Morago, 2005) that also contribute to rights abuse.

Moreover, in order to avoid violence and domestic political conflicts, masses often migrate into neighbouring countries that are not capable of sustaining large quantities of refugees. At this stage, rights abuses among disaster victims are always expected due to limited availability of resources from international communities, pressure from the new country to which refugees migrated and large amounts of refugees that increase challenges to humanitarian workers. Thus, it is obvious why refugees are considered a major weakness of the international relief community (McEntire, 1997). Thus, there is no assurance that disaster victims are protected by international law in disaster scene. It depends much on national commitment and capability to implement comprehensive disaster planning strategies to protect the rights of their own people.

### **3.6.2 The Human Rights Violation to Adequate Housing**

Every man, woman and child has the right to highest possible standard of health and also has the right to access to shelter. States shall adopt necessary measures for the protection of health of the people and also by providing adequate shelter to them. The human right to housing is explicitly set out in the 'Universal Declaration on Human Rights (1948)', 'International Covenant on Civil and Political Rights (1966)', 'International Convention Relating to the Status of Refugees (1951)', 'International Convention on the Elimination of All Forms of Racial Discrimination (1965)' and 'International Labour Organisation Convention No. 117 Concerning Social Policy (Basic Aims and Standards) (1962)'. Governments or states (UN state members) are obligated to these international provisions of human rights law that guarantee everyone the human right to adequate housing.

Commitments from any states must include quotations from the UN Committee of International Covenant on Economic, Social and Cultural Rights (ICESCR<sup>8</sup>) (entry into force 3 January 1976) states that:

"The States Parties to...[the International Covenant on Economic, Social and Cultural Rights] recognise the right of everyone to an adequate standard of living for himself and his family, including...housing...Each State Party to the present Covenant undertakes to take steps...with a view to achieving progressively the full realisation of the rights recognised in the present Covenant by all appropriate means, including particularly the adoption of legislative measures".

[ICESCR, Articles 11(1) and 2(1)]

The United Nations Committee on Economic, Social and Cultural Rights is assigned by the international community with monitoring compliance with the International Covenant on Economic, Social and Cultural Rights. It is also assigned to provide the sole authoritative interpretative pronouncements as to the content of the covenant<sup>9</sup>. Despite extensive recognition of the human right to adequate housing, according to the 1996 report, the UN Centre for Human Settlements (HABITAT) estimates that over 1 billion people worldwide live in inadequate housing and 100 million are homeless, that includes those in housing that is insecure or temporary and often the product of poor construction quality. For example squatters who have found accommodation by illegally occupying someone else's home or land and are under constant threat of eviction; those living in refugee camps whose home have been destroyed; and those living in temporary shelter for example the 250,000 pavement dwellers in Bombay (UN-Habitat, 1996).

In the UN-HABITAT Agenda II at the Istanbul Declaration on Human Settlements (1996), the United Nations has defined 'shelter' as providing adequate houses that should protect the people from the outside hazard, provide liveable space, victims have a rest and storage space, privacy and emotional security (UN-HABITAT, 1996). Adequate shelter should have:

---

<sup>8</sup> Adopted and opened for signature, ratification and accession by the UN General Assembly resolution 2200A (XXI) of 16 December 1966.

<sup>9</sup> Covenant is an international agreement, whether bilateral or multilateral, whereby any States (United Nations state members) agree to bind themselves under international law to conform to its provisions

“...adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: should be available at an affordable cost”.

(UN-HABITAT, 1996: 38)

Thus,

“...in shelter and urban development and management policies, particular attention should be given to the needs and participation of indigenous people. These policies should fully respect their identity and culture and provide an appropriate environment that enables them to participate in political, social and economic life”.

(UN-HABITAT, 2003: 4)

Uvin *et al.* (2003) argued that all of these declarations aim to represent a dramatic rethinking of the functions of justice in a post-disaster society, stressing community participation over existing states' legal procedure and request for restorative justice. “All partners of the Habitat Agenda, including local authorities, the private sector and communities, should regularly monitor and evaluate their own performances in the implementation of the Habitat Agenda through the status of project implementation. All of these partners' capabilities should be strengthened and assisted at all levels, especially the local level” (UN-HABITAT, 2003: 108). However, the international community has rarely invested seriously in justice and human rights as part of an attempt to restore peace and promote democracy and understanding in post-disaster recovery period (Uvin *et al.* 2003).

### **3.7 Community Participations**

Assessments of needs should be based on the expressed priorities of affected communities because recovery is not just in physical appearance in order to restore normality (Arslan *et al.* 2007). The principle in any development from disasters focus on the crucial participation from affected communities in order to study how to provide income

generation, rebuilding social support networks, activities essential for maintaining cultural identities and reviving and conserving the often protective but vulnerable ecosystem (Cernea *et al.* 2000). Therefore, people should be centrally involved in planning and implementing the recovery and rehabilitation of their own communities based on closed consultation amongst planners, policy makers and communities (Wisner *et al.* 2002).

The affected population must be strongly represented on the body that directs recovery. They should be incorporated, coordinated and extended as part of the recovery planning process. Participatory planning must involve people from the start of the planning process. It is not enough simply to ask them for their opinion of a plan that has already been drawn rather listen to communities concerned as input to recovery plans especially related to housing resettlement or reconstruction.

It is important to examine information related to people who are going to live in the buildings because lessons can be learned on the involvement of local residents (Spence, 2009). Local residents have knowledge of the place they live in. It would be crucial to establish timely contact with local residents and use the information to guide the rescue effort and fulfill what local residents expect to receive. Without understanding local needs, it would result not only cause confusions, but also waste of resources (Xiulan, 2008). However, planners or service provider and people in the community often have different priorities and perceptions (Wisner *et al.* 2002) (as discussed in section 2.5.1, p.31; 2.5.2, p.34; and 3.8, p.83, p.3). For example, an architect or planner may think that improving drainage is most important due to health control, while the residents may view the gender separation as more urgent. The conflict of interest, priorities and perceptions between affected group of population and service provider or authority are further argued by John Turner<sup>10</sup> and Rod Burgess<sup>11</sup> below.

Since the end of the 1960s the government was called upon to support ‘self-help’ housing and should enable the users of housing to participate in housing activities (e.g. planning, organisation of building and maintenance) (Abrams, 1964). Turner (1968) notes that the idea of ‘self help’ especially for the poor was further developed from Ernest

---

<sup>10</sup> Among those who have written about housing policy in the developing world there is no one who has had more influence than John Turner. Charles Abrams is closest competitor in terms of academic influence in the housing field but in Abrams’ work there were many insights toward housing issues, but no single line of argument (Harris, 2003).

<sup>11</sup> Rod Burgess criticised John Turners’ work in Burgess, R. (1977) *Self-help housing: A new imperialist strategy?* A critique of the Turner school, *Antipode* 9, pp.50–60.

Weissman and Charles Abrams in the 1960s with crucial participation by government to help people to acquire modest homes by building their own house known as 'aided self-help'. Self help is the practice by which people house themselves outside the formal market (Turner, 1977). Even though the idea of this 'aided self help' was originated in Peru with support from The World Bank (Site-and-Service Schemes) in the early 1970s, the implementation at site can be learned by other developing countries especially the government. Turner (1968) argued that resettlements should be viewed more as a solution than as a problem and urged the government to stop trying to work for these people and started trying to work with them because they know what is best for their family and community.

However, Burgess (1978) argued that the 'self-help' concept was highly controversial due to the question of 'priority' because the service provider (the government) has issues with bureaucracy. On the other hand, capability of the people is also being questioned in building their own house according to situational needs without reference to building codes. Housing should be built according to rules and regulations, controlled by authority through inspection, incentive and punitive measures. The problem with 'self-help' is that this concept was introduced to the lower income group that the issue is obviously back on the basis of costs. The cost of contraction was the main constrain to this people that limit the quality of construction. Nevertheless, according to the 'self-help', poor people in developing world understand better to address their own problems (Turner, 1977). The settlements that these poor people create are better fitted to their immediate needs and circumstances. Although at the beginning of development these settlements may seem disorganised and inadequate, they will be improved from time to time based on a family's financial income (Turner, 1967).

Housing designed by architects and built for governmental agencies was condemned by John Turner because the poor people have to accept fixed building standards (Burgess, 1977). As argued by Turner (1977) in some cases these people need more than just limited space provided by the standards. In contrast, Burgess argued that the issue is back to the common way of housing development that should comply with building codes, sustainability and long term benefit to the people, community and environment. Thus, Burgess (1978) concludes that one of the most significant weaknesses in Turner's work was that he ignored elements of minimum standards according to building codes.

Nevertheless, both John Turner and Rod Burgess agreed that housing problems in the developing countries is best be understood as the product of the general conditions (e.g. city migration, overcrowded and financial limitation) of commercial development rather than the product of particular technological or organisational systems (Turner, 1977; Burgess, 1978). These general conditions are based on all the typical problems of the resettlement process and urbanisation. They suggest that government and the affected people must find ways to understand each other because neither the urban nor the housing problem can be handled with isolation and both sides must work together (Turner, 1977; Burgess, 1978). The case of 'Grootboom' revealed the real scenario of community that had been neglected by government to the rights of adequate housing and against the suggestion made by John Turner and Rod Burgess towards essential interaction between government and community.

However, there is boundary between involvements of victims in post recovery work (Arslan *et al.* 2007). Commonly, most of the victims were in a traumatic case even they had no injuries or damaged buildings (Mulwanda, 1992). The state of this current situation limits active participation from victims due to low capability and readiness physically and mentally. They must know their own capability and readiness before they can get involved in the decision making process because mitigation effort demands consideration to legal framework (Mulwanda, 1992). Disaster victims must take rational action that facilitates government to establish self-reliant communities so as to reduce their vulnerability to natural disasters. For example, one of the reasons for failure in the 'Grootboom' case (see section 3.7.1, p.71) was that the community did not have enough knowledge about the national housing programme (De Vos, 2001).

### **3.7.1 The 'Grootboom' Case and the Rights to Adequate Housing**

Mrs. Irene Grootboom was part of a group that included 390 adults and 510 children living in terrible conditions in an informal settlement called 'Wallacedene'. Her home/belongings were demolished to make way for new affordable government housing project. They then illegally occupied nearby land from where they were evicted. They therefore moved to a sports field nearby as squatters. After complaints from the locals, Irene and the community were evicted from the site and their housing materials destroyed.

With legal support, the community took the government to court over the rights to shelter clause in the South African Constitution. On the 4 October 2000 in a unanimous decision, it was noted that the Constitution obliges the state to act positively to improve the difficulty of people living in terrible conditions throughout the country (Kende, 2004). The court stressed that all the rights in the 'Bill of Rights' are inter-related and mutually supporting (De Vos, 2001). The High Court found that the children and their parents were entitled to shelter under section 28 (1) (c), of the Constitution and ordered that the national and provincial governments as well as the Metropolitan Council and the Municipality should provide them with tents, portable latrines (trench toilets) and a regular supply of water as minimal shelter. Finally, a provincial court in Cape Town agreed with the community and ruled that the local government must make available a community hall for this purpose.

Unfortunately, Irene could not demand a house from the state due to the political atmosphere South Africa. For example, it is essential that a reasonable part of the national housing budget is allocated to the homeless, but the precise allocation is for the national government to decide. This statement reveals the court's remarkable balancing act. It forced compliance with the constitution but gave government diplomacy on how to go about complying (Kende, 2004). The court's remedy was incomplete (Kende, 2004) and this policy has not been implemented reasonably (De Vos, 2001). The court should have made clear that the government had to put the shelter needs of the homeless ahead of other housing needs. A community hall was provided to the Grootboom community but was not provided with running water and unmaintained toilets. In contrast, according to international guidelines every person has a right to toilets, running water and cover from the outside elements (hazards) (Crawford, 2002). Irene could only demand that the state act reasonably to implement a housing policy and not to provide them adequate housing. One of the reasons for failure in the 'Grootboom' case was that the community she represented failed to explain the precise extent to what the government must prioritise the needs of the poor in policy decisions (De Vos, 2001).

Irene died in 2008 in a shack instead of a house because new housing policy for the homeless was not implementable even after 8 years of court ruling. There is now a new wave of social and economic rights discussion in many countries because the 'Grootboom' case was set as a landmark case in terms of government responsibility and the rights to



adequate housing. Government is not invincible to judicial prosecution. The most important lesson of the ‘Grootboom’ case is that the social and economic rights are about the duty on government to attend, as a matter of priority, to the basic needs of the poorest.

### 3.8 Behaviours of Government Institution in Disaster Planning

In most disasters, traditional institutions exist for managing emergency response such as army, civil defence agency, fire brigade, Red Cross/Red Crescent Movement and other humanitarian agencies. A stronger institution is essential for sustaining a successful risk reduction plan. In land development processes, rules (i.e. social, political and economic) are conceived in institutions that affect human behaviour as shown in Table 3.3 (Keogh *et al.* 1998).

**Table 3.3: The Institutional Environment for Property Analysis**

Category	Properties
Political structure	Form of local and national governance; political risks; constitutional conventions; and participation in international blocs
Economic structure	System of resource allocation (market; exchange rate, interest rate and inflation experience; industrial structure; the spatial structure of economic activity; organisation and development of financial and asset markets; degree of market openness; taxation; and incentive system)
Social structure	Race and culture; social attitudes, class structure; unwritten codes of ethics; and social relations
Legal frameworks	Planning law and property law; law of contract; inheritance and tax law; constitutional law; legislation versus case law, practice and interpretation; regional differences in the application of legislation; and influence of international law

Source: D’Arcy *et al.* (1996)

However not every country is capable of administering long term strategies and actions in risk reduction programmes. Weaknesses in institution (i.e. social, political and economic) are always to blame for this failure (Aysan, 2006). Scholars found that behaviour from social system outcome was one of the main contributions to this failure (Dynes, 1993).

Social psychologists (Messick, 1999), evolutionary psychologists (Cosmides *et al.* 1992), sociologists and anthropologists (Kollock, 1998; Boehm, 1999) and political scientists (Axelrod, 1984; Simon, 1997; Axelrod *et al.* 2000) are all concerned about building a better foundation for understanding behaviour as a necessary step before trying to improve public policy. Rules, policy and organisations were found to be the main considerations in deciding ‘institutions’ as a complete package that must supported by positive agents (e.g. peer groups, work place and education) and society attitudes (Omar, 2002).

In additional, institutional economists consider the fact that ‘economic theory’ in rules and institutions is also part of the package because for control over public services government agencies commonly employ a ‘fair rate of return’ principle (Mair *et al.* 1992). According to the ‘fair rate of return’ principle governments earn a profit from expenditures and investments, and will then turn to service upgrades for the public. Government has to balance their responsibility in competing values and their ideological position (political preference) in the free market condition (business governed by the laws of supply and demand) outside of organisation. Competing values describes organisational culture in terms of what appear to be commonly important dimensions of value to the institution such as structural control or flexibility and focus on internal or external stakeholders. Competing values have implications for a variety of organisational phenomena, including decision making, and strategic management with high-quality leadership.

In organisations, officials experience social dilemma and conflicts over individual achievement and institutional outcomes as a group in making decision (Schelling, 1978; Lichbach, 1995). Officials may feel isolated from other representing officials and settings due to lack of knowledge concerning the latest organisation updates. In some cases, a member prefers to be a ‘free-rider,’ which might affect the whole group performance. Surveys on commitment in a very large number of international public services show that, of the amount of contributions by members, only 40 to 60 per cent make the optimal level of contributions (Davis *et al.* 1993; Sally 1995). In terms of internal motivation, persuasion for personal gain is important in achieving institutional objectives. However, officials in one jurisdiction (or one department within a larger jurisdiction) may put the interest of their own unit ahead of achieving objectives requiring full participation of all units.

Hence, Jones (2001) argued that humans are adaptable creatures depending on the situational constraints that they find themselves in. Humans are capable of learning norms (e.g. to learn, discover, understand, or solve problems) and full analytical strategies from one and another and give and receive feedback from the world (surroundings) (Simon, 1999). Normal processes of learning may vary depending on individual's experience within any particular situation. Most certainly, they know how to differentiate and adopt both short-term and long-term perspectives depending on the opportunities they encounter (Ostrom, 2007). Initial emotion, direct experience by others and normative (common) state are the main influences concerning particular behaviour in a specific setting (Cox, 2004; Cox *et al.* 2005).

Scholars have concluded that the similarity of issues in the public and private sector does require similar attention in finding ways of solving problems (Ostrom, 2002). Scholars also identified those factors influencing institutions that govern human social interactions are the traditions and informal customs (Graaskamp, 1992). They are a result of socio-economic formal rules, political and legal systems (Healey, 1992; Van Der Krabben, 1995; North, 1996).

The perception of this organisational culture is growing in management, steering organisational behaviour from the right attitudes toward efficiency in regulatory compliance (Weick, 1987; Westrum, 1992). The management of habits, folkways (practice, custom, or belief shared by the members of a group as part of their common culture) and norms of organisational culture are the keys that shape action at the end (Westrum, 1992; Pidgeon, 1998; Toft *et al.* 1999). The role of managers and supervisors as leaders is the key contribution for consideration when commencing a planning structure (Deaux *et al.* 1993). They must be able to communicate with group members and initiate planning structure to define organisational aims, communication and procedures.

Even if institutions may or may not involve organisation, compliance with planning structure must become institutionalised because institutions provide structure, guidelines for behavior and shape human interaction (Luttig, 2000). Compliance culture in any institution is important due to an 'attitude' of the members set values in conjunction with regulatory aspiration (Makkai *et al.* 1993; Parker, 1999; Luttig, 2000). Compliance culture needs to become an everyday business (Gunningham *et al.* 1999a). This corporate culture then shapes behaviour so that members act in a manner that recognises the success of the

organisation is best achieved by ongoing compliance with regulatory goals (Brooks, 1988). As a result, clarity in a regulatory regime will increase and reduce prescriptive rules.

### **3.8.1 Officials' Attitudes in Disaster Planning**

Generally, diverse recent information is available on the opinions and attitudes of officials in disaster planning. However, recent academic worked proposed that neither work by public officers nor private officers follow regulatory compliance with disaster planning in Malaysia (Aini *et al.* 2006) (see section 4.4, p.101). Much past research (national or international) has focused on organisational behaviour and quotes rather than understanding the nature of attitudes towards compliance with disaster planning programme. Studies into understanding attitudes are important because the 'attitude' of an organisation in disaster situations sets the aspiration that leads to fostering a compliance culture (Makkai *et al.* 1993; Parker, 1999; Luttig, 2000). The correct attitude in approach is vital because compliance culture needs to be considered in everyday activities in order to meet the goals set out by the regulatory compliance bodies (Gunningham *et al.* 1999a). This mutual culture subsequently shapes the behaviour of members in an organisation and is best achieved by on-going compliance (Brooks, 1988). Consequently, bureaucracy can be kept to a lowest consequence and increase the clarity and efficiency of regulatory administration simultaneously.

#### **3.8.1.1 Attitudes**

An attitude is a mental process that determines both the actual and potential responses of an individual in the social world (Allport, 1971). Actual and potential responses are usually directed towards some entity and are described as a mindset judgment of a person towards a value (Allport, 1971).

The entity about which an individual holds an attitude is called an attitude object. Attitude objects can be something that is discernable or an object of thought (Jonas *et al.* 1995) such as the self, people, concrete objects, or abstract entities like social policies, ideologies. Therefore Allport (1971) described attitude objects as an inspirational act organised through experience that depends much on mental state readiness to response to all related objects and situations. Mental state is an essential human property in a definite period of time (Allport, 1971). Characteristics of the state of mental readiness are based on

motivation and determination to achieve a goal, as well as activity levels, and the capability of self-regulation. Meanwhile, Jonas *et al.* (1995) defined attitude as a state of psychological evaluation that is influenced by one's surroundings. Attitudes were also understood by scholars as a summary of cognitive expression from an internal evaluation towards an object (Smith *et al.* 1995).

A person's attitude towards an attitude object can be positive, neutral or negative and can vary in intensity. This intensity normally reflects the person's evaluation of the object as being weak or strong. As the person's evaluation of the object becomes more salient and more involved, his/her rejection or acceptance of it increases and his/her indifference towards it decreases.

### **3.8.1.2 Attitude Development**

An individual develops attitudes in the process of interacting with the attitude object. A person's attitude will determine what the person will hear, think and do about the object (compliance issue) (Allport, 1971). Beliefs about the object's positive or negative characteristics, feelings and emotions towards it, and past and current behaviours towards it were found as three main factors that develop a person's attitude towards an issue (Smith *et al.* 1995, Jonas *et al.* 1995; Franzoi, 1996).

As mentioned by Smith *et al.* (1995), attitudes enable an individual to make sense of the social environment and forge connections with other persons. Attitudes assist a person to master the environment through the function of object (knowledge) appraisal (Smith *et al.* 1995). This function of attitudes enables a person to focus on the attitude object characteristics so that it can be dealt with meaningfully. Attitudes allow a person to classify new information and accommodate it along with established, existing information so that the complex world can be simplified (Stahlberg *et al.* 1992).

Attitudes enable a person to forge links with others, or in other words to gain and maintain connectedness with others. This social identity function may also be known as value-expressive function (Smith *et al.* 1995). As mentioned by Stahlberg *et al.* (1992), attitudes serve the purpose of protecting individuals from negative feelings towards themselves or their own groups and enable them to voice values or convictions when standing up to certain issues concerning the attitude object. These two functions of attitudes do not necessarily exist separately from each other.

### **3.8.1.3 Measurement of Attitude**

A person's attitudes towards an object are very difficult to measure because it is an abstract in nature and thus, it cannot be measured directly (Lindgren, 1973; Stahlberg *et al.* 1992; Smith *et al.* 1995). Scholars make an assumption that collecting his/her opinions or beliefs about the attitude object is the correct way in attitude measurement (Stahlberg *et al.* 1992). Thus a person's attitudes can be inferred from his/her evaluative statements and other expressions about the attitude object (Lindgren, 1973). As suggested by Smith *et al.* (1995), measuring a person's attitudes involves two key factors: (1) the direction of his/her attitudes towards the attitude objects (i.e. for or to it) and (2) the intensity of his/her attitudes towards it (i.e. strong, neutral or weak).

Two ways to measure attitudes, are either by asking the person directly about their evaluation concerning the attitude object, or by observing their overt behaviours towards it (Lindgren, 1973; Stahlberg *et al.* 1992; Smith *et al.* 1995). This second form of indirect measurement usually involves the measurement of people's attitudes without them being aware that their attitudes are being measured.

### **3.8.1.4 Attitude Scales**

There are several ways of developing attitude scales to measure attitudes. Attitude scales are used to measure both the direction and the intensity of a person's views about the attitude object. The scales normally consist of a series of questions asking the respondent how strongly he/she agrees or disagrees in his/her evaluation of the attitude object. Respondents choose from options that range from an extreme negative evaluation through a neutral point to an extreme positive evaluation (Smith *et al.* 1995). Classically, there are four popular approaches used to develop an attitude scale (Lindgren, 1973; Stahlberg *et al.* 1992). These are: Thurstone's equal appearing interval, Semantic differential, Likert scale and the one-item rating scales. For the purpose of the study, the Likert scale had been chosen in designing survey questionnaires that are specifically described in the methodology chapter.

### **3.8.1.5 The Three-Component Model**

According to this model, attitudes consist of three components (Triandis *et al.* 1986; Stahlberg *et al.* 1992; Smith *et al.* 1995; Jonas *et al.* 1995; Franzoi, 1996). The three

components are cognitive, affective and conative. For the purpose of this study, the three-component model of attitudes offers a way to analyse actors' attitudes towards regulatory compliance. The three-component model allows for relatively 'fine tuning' and relating to changing attitudes in the initial descriptive phase in order to identify what are actors' attitudes to regulatory compliance implementation. Analysing attitudes in terms of their cognitive, affective and conative components will help to detect the relative strength of each of the three dimensions. Given the nature and scope of this study, the three-component model has been adopted because it is descriptively adequate.

#### A. Cognitive

Cognitive information is what a person knows intellectually about an attitude object (i.e. the facts). The cognitive aspect of attitude formation assumes that it is largely our knowledge and understanding that shape our attitudes. Stahlberg *et al.* (1992) notes that the cognitive aspect is a judgment held concerning the attitude object as a result from information, knowledge or thought influence.

A belief is a perceived link between an attitude object and the attribute associated with it that tends to shape an individual's concept of the attitude object. Since it tends to be highly accessible, a belief formed by personal experience of an attitude object influences an individual's judgment, frequently thought about and comes quickly to mind. Besides experience, acquiring more information of a perceptually main nature about an attitude object can also influence a person's beliefs and contribute to a strong effect on judgment. Hence, individuals are likely to hold positive attitudes towards objects they think may have good attributes and negative attitudes towards objects they think may have bad attributes. On the other hand, a belief about a category of people is often called a stereotype. A stereotype is a belief that members of a particular group of people have certain common traits or attributes.

#### B. Affective

Affective information consists of how an individual feels about the attitude object and involves the feelings, moods, emotions or sympathetic nervous system activity that is aroused in a person in relation to the attitude. Attitudes therefore are the positive or

negative evaluations a person gives to an attitude object and this evaluation has degrees of intensity attached to it.

The emotion attached to the attitude object may not necessarily be closely related to cognitive understanding. The mere increase of exposure to a particular attitude object may lead to the development of a more positive attitude to that object. This phenomenon is called the ‘mere exposure effect’, and does not require the development of any beliefs, nor does it assume any underlying motive that shapes the attitude (Franzoi, 1996). Hence, people may form an attitude based on an affective response rather than a belief about that object.

### C. Conative

Conative information gained through personal experiences is one of the important bases of attitude development, since it is held that it is our behavioural response to the attitude object that helps to shape our attitude, involving as it does intentions to behave that are not necessarily expressed in action (Jonas *et al.* 1995).

“...some sort of predisposition to a certain kind of attitude-relevant action that is the readiness to behave towards a certain attitude object in a special way...”

(Stahlberg *et al.* 1992: 143)

Therefore, if attitudes influence overt behaviour, an individual with a positive attitude to an object should engage in behaviour that moves towards the attitude object. Those with negative attitudes should move away from it.

## 3.9 Conclusion

There is a straightforward link between compliance and the conventional ‘command and control’ regulatory regimes. For many years, regulatory regimes rely on ‘command and control’ regulatory philosophy in order to protect public and achieve regulatory goals. Regulators also assume that enforcement is only restricted to the specification in regulations. Consequently, the trend in enforcement is towards prescriptive detail without any efforts to minimise loopholes in organisations’ administration. However, this type of enforcement is typically more effective and enforceable to regulation restriction in



equipment utilisation, strict components process or procedures. On the other hand, this type of enforcement is often less effective in ensuring compliance with those detailed procedures that are affected by various operational parameters. Thus, the 'good governance' concept was introduced to provide an enabling environment for disaster risk reduction, which would translate into political commitment from decision-makers (Davis, 2007). The Good governance concept will assist the presence of national policies that provides the framework for decision-makers, planners, practitioners and civil society to act and implement risk reduction priorities accordingly. An effective policy shall be able to assist an organisation to achieve stipulated strategic objectives, typically to reduce disaster risks, strengthening the legislative framework, generate or distribute funds, utilise human resources and optimise available capacities without ignorance to international requirements. This comprehensive disaster reduction policy is able to integrate an effort toward multiple development and environmental policies and legislation simultaneously. Ultimately, it is the application of legislation through risk reduction practices and tools that will bring about the desired changes at all levels of intervention and reduce vulnerabilities in the long-term. 'Good governance' in other words is able to ensure a high level of compliance with standards in construction, continuous policy enforcement without compromising the quality of health and educational facilities (Aysan, 2006). Apparently, the demand acquiring enforcement sensitivity to the community is increased due to access to human rights. In the case of 'Grootboom', negligence of authority contributes more to a community's vulnerability. Legitimacy is just an excuse used by authority to ignore what a community deserves according to international conventions. 'Attitude' in responsible enforcement has changed from the conventional perception of regulatory system avoidance (e.g. inspectors, permit writers, staff as enforcement) to institutional misunderstanding. Factors influencing general actor attitudes towards regulatory compliance have been the focus of many studies undertaken in various countries in the world. The next chapter will attempt to extract from these studies some of those factors that have been found to influence actor's attitudes to comply with disaster management framework in the context of Malaysia.

## CHAPTER 4

### Malaysia Context

“Malaysia is serious about the 2020 vision to become an industrialised and developed country with a ‘clean, efficient and effective’ administration of public service sectors”.

(Sarji, 1996: 21)

#### 4.1 Introduction

Malaysia is a federal constitutional<sup>12</sup> monarchy with a bicameral federal legislature (Parliament) and unicameral (one legislative) state legislatures (Rawlings, 1986). Parliament is the national legislature (bicameral-Peoples’ Hall, Nation’s Hall and the ‘King’ as the third component). Malaysia has a three-tier government structure: federal, state and local.

The Cabinet (council of ministers who are accountable to the Parliament) is the highest coordinating executive body of all government activities and interests. “The Cabinet is assisted in the discharge of its functions by two national councils, the National Economic Council (NEC), responsible for coordinating all development programs and the National Security Council (NSC), responsible for national security. There are three other national councils, the National Council for Local Government, the National Land Council and the National Finance Council” (Rawlings, 1986: 240) to improve and enhance coordination within the government machinery especially influence over the state governments. The national body responsible for local government is the Ministry of Housing and Local Government, assisted by the National Council for Local Government.

The state governments are headed by ceremonial State Rulers. The Ruler acts on the advice of the State Executive Council that is chaired by the Chief Minister. The state legislature has the autonomy to pass any law so long as it is consistent with federal laws. Local government comprises two levels, district administration and local authorities. District administration is the major administrative body at the district level for both the state and federal governments. The District Officer heads the District Council and is responsible for the development of the district as a whole (include local authority).

---

<sup>12</sup> This Constitution is the supreme law of the Federation and any law passed after Merdeka Day that is inconsistent with this Constitution shall, to the extent of the inconsistency, be void [Article 4 (1)].

Coordination of the development activities is done through various committees, chaired mostly by the District Officer (Rawlings, 1986).

According to the '2004 United Nations Development Programme' (UNDP) Human Development Report, Malaysia is in the medium Human Development Index (0.79- between 0.500 and 0.800, countries are part of the Medium Human Development group) and is ranked 59 out of 175 countries worldwide (UNDP, 2004). The HDI (a summary composite index from 0 to 1) is an indicator of a country's life quality based on long life, educational standard and living standard from GDP. Malaysia's per capita GDP, estimated at USD 5,083 in 2006 and growing (USD 6,956 in 2007), measured on equivalence basis of purchasing power was estimated at USD 359 billion, classifies it by the World Bank as a middle-income economy (IMF, 2008). Although Malaysia is still considered as a developing country, it is no longer a third world country (WHO, 2005). Hence, civil servants in Malaysia benefit from much higher salaries compared to other neighboring countries (Quah, 1986).

In national administration, it is acknowledged that policies, being major organisational documents, are usually well studied prior to publication and enforcement (Kaufmann *et al.* 2007a). Recently, scholars differentiate measuring indicators (measuring good governance) of written formal laws or rules compared to practicality on setting (Kaufmann *et al.* 2007a). In Malaysia, indicators show that the score for the quality of public administration rates as average 78.8/+0.90 (World Bank, 2009a). Higher values (percentile rank 0 to 100) indicate better governance ratings. Meanwhile estimates of government measured on a scale from approximately -2.5 to 2.5 with higher values correspond to better governance. Other indicators related to the level of governance in Malaysia as mentioned by the World Bank (2009a) are:

1. Voice and accountability (31.3/-0.55);
2. Political stability and absence of violence (52.4/+0.20);
3. Regulatory quality (trade policy and business regulatory environment) (67/+0.53);
4. Government effectiveness (efficiency of revenue mobilisation/public expenditures, budget management, quality public administration, management of external debt) (82.9/+1.07);
5. Rule of law (property rights) (65.2/+0.53); and

6. Control of corruption (transparency, accountability and corruption in public sector) (62.3/+0.19).

Subsequently, scholars emphasised the need for state public administration to: transparently disclose and account for the margins of error in all indicators; represent from a range of indicators and exploit similarities among them; present all indicators to thorough public and academic analysis; and learn the lessons in order to be realistic in the expectations of future indicators (Kaufmann *et al.* 2007b).

#### **4.2 Quality of Public Service Administration**

The 'Global Competitiveness Report' recently placed Malaysia as 26<sup>th</sup> out of 160 countries (WEF, 2007). However, this rank is considered weak once compared to the competitors in the region like Singapore (5<sup>th</sup>), Hong Kong (11<sup>th</sup>), Taiwan (13<sup>th</sup>) and South Korea (24<sup>th</sup>). The problems with Malaysian public service in global competitiveness are the low integrity levels and ethical behaviour. Bureaucracy atmosphere in Malaysia is never free from bribery prosecution (Navaratnam, 2004). Leong (2006) argues that Malaysia must overcome the issues of dishonesty; bureaucracy; incompetence and professionalism; confusion of procedures; and non-competitiveness of public service so as to compete with other developed countries. Malaysia is still working to rectify any weaknesses in public service sector. Nevertheless, the development in the Malaysian public service sector is encouraging due to continuous dedication for change either from political or administrative levels (Siddiquee, 2007a).

The new direction of Vision 2020 was introduced in 1991 for public service transformation towards an efficient, effective and clean administration (development and implementation of government policy) (Sarji, 1996). One important move toward the accomplishment is by establishing comprehensive policies in all national directions. An establishment of robust policies is vital in the process of shifting and improving value in public governance. The policies motivate Malaysians to perform at high standards, increase productivity and performance (Taib *et al.* 1992). The latest approaches and procedures (from international recognitions) were implemented in administration and unnecessary protocols were abandoned as value-added to policy implementation (Sarji, 1996; Siddiquee, 2006).

However, such positive features and benefits do not act as an assurance that public governance in Malaysia is free from inconsistencies and deficiencies. Malaysia is still struggling with the issue of poor records and ratings (Siddiquee, 2007a). Efforts have been taken to reduce red tape, reorganisation of work procedures and methods since the early 1980. They still ineffectively fulfill the demand and expectation from the public.

Each year, an estimated 3500 complaints regarding incompetent performance and ‘red-tape’<sup>13</sup> by public administrators are received by the ‘Public Complaints Bureau’ (PCB) (PCB, 2006; EPU, 2006). Forty eight per cent of the complaints were concerning delays and non-committal in taking actions. Other than those complaints, there were also complaints regarding delayed procedures, unreasonable decision making, misconduct and regulatory non-compliance. The public were also concerned about the poor quality of services and discrimination, particularly in land and permits issue (PCB, 2006). Thus, Malaysians require greater effort in order to witness efficiency and responsiveness in governmental operations because intentional goals and benefits in Malaysian public service are not yet reflecting the end results (Taib *et al.* 1992; Ho, 2002; Common, 2003; Siddiquee, 2006).

#### **4.2.1 Framework of National’s Public Service Sector**

The varieties of legal framework in the civil services (i.e. the body of employees in any government agency other than the military) in the five ASEAN countries (e.g. Malaysia and Singapore) were created according to the former colonial heritage and constitutional provisions of the country (Quah, 1986). The Malaysian Government inherited the executive administration left by the British Government (colonial) (Aini *et al.* 2005). The orientation of colonial bureaucracy was towards the preservation of a restricted developmental revenue-collection and law and order. The most challenging period in Malaysian administration covered the period of pre and post-independence. The focus towards the administration system was more on changes to civil servants’<sup>14</sup> perception as an independent

---

<sup>13</sup> The terms ‘red-tape’ were adopted from Kaufmann, H. (1993) *Social Psychology, The study of human interaction*, USA: Holt, Rhinehart and Winston Inc. as the collection or sequence of forms and procedures required to gain bureaucratic approval for something, especially when oppressively complex and time-consuming.

<sup>14</sup> Civil servants are the civilian public sector employee working for a government department or agency (Sarji, 1996).

nation. The primary role was then expanded to promote and enhance institutional building and development in the public sector (Osman, 2003).

The legal basis of the Malaysian Civil Service (MCS) is found in the Federal Constitution (PSD, 1996). This legal basis specifies the appointment, dismissal, reduction in rank, secondment/transfer and protection of pension rights of civil servants. In addition, the Constitution also provides a legislative statement with relevant details of their membership and functions. The conditions and terms of service and operational procedures of civil servants are administered by the general orders issued by the Public Services Department (PSD) in accordance with Article 132 (2) of the Federal Constitution (Omar, 1980). The PSD's aim is to formulate, plan and implement policies to ensure that the civil service consists of personnel that are efficient, dedicated and trained to implement all national policies and objectives (Marican, 1980).

The PSD has implemented the new performance appraisal system (NPAS) on 1 January 1992 (PSD, 1996). Performance appraisal is done for various reasons: professional and career development, accountability linked to recognition and compensation references for disciplinary procedure and, most commonly, as a mechanism to determine salary increment and as a promotion exercise (Abdul-Aziz, 1999). There are two types (i.e. individually and departmental) of yearly appraisal (once in June and once in December) that involve the process of comparison between planned programmes and projects (i.e. based on the central government policy and planning, budget allocation, staffing and facilities allocated) to actual achievement. The standard of work achievement will be measured based on cost, quantity, quality and time (Public Service Department, 1996). The completed individual self-assessment form as well as the assessment of his/her superior officer will be assessed during the interviews by the promotion board (Performance Appraisal Committee-PAC) as reflected in the annual and special confidential reports (Shaan, 1980).

The Staff Training Centre (STC) was formed in 1963 as part of the assistance programme known as New Zealand/Colombo Plan (Esman, 1972). Increased levels of awareness about the importance of skills and training in the civil service, the government in 1965 hired two public administration experts from the Harvard, United States of America, John D. Montgomery and Milton J. Esman to examine Malaysia's administrative system and make recommendations for improving and suggest developments to its capacity (Omar,

1980). As a result, most of the national security and safety rules and regulations (e.g. OSHA) are inspired from the United States of America. Even, most of the local experts were trained in the United States of America.

Then, the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU) was established in 1966 to upgrade professionalism in all categories of employees in the civil service through educational and training programmes. National Institute of Public Administration (NIPA) or its Malay equivalent, *Institut Tadbiran Awam Negara (INTAN)*, was formed in September 1972 and was expected to contribute to the better construction of national civil servants training centre in a way by providing government employees with the knowledge and skills required in the management of public policies and programmes (Omar, 1980). Most of the courses were still relevant and upgraded from time to time (Marican, 1979).

#### **4.3 Malaysia and Asia<sup>15</sup>**

Asia comprises two thirds of the world's population, over 50 per cent of the world's surface, 50 per cent of the global's economy, 45 per cent of the world's military and is home to 70 per cent of the world's disasters (Ausaid, 2008). Asia acquires physical losses approximately worth USD 39.5 billion annually (ADB, 2008). In the year 2005 only about 650 severe natural hazard events were recorded worldwide, 42 per cent of these happened in Asia with estimated USD 21 billion physical damage and a shocking 80 per cent of the worldwide death toll (Ausaid, 2008).

The geophysical and geographical characteristics of Asia make the region more vulnerable to natural disasters. Ausaid (2008) notes, that 75 per cent of the world's active and non-active volcanoes are in Asia. Asia also experiences 90 per cent of the globe's earthquakes. The region suffers from 37 per cent of the world's recorded natural disasters, 57 per cent of deaths, affecting 89 per cent of population affected and damages to 44 per cent of property and infrastructure affected from the year 1975 to 2005. Ausaid (2008) also found that weather-related hazards contributed approximately two thirds of the natural disasters in Asia and Pacific region.

Recently, Asia has been experiencing strong economic growth and investing massive capital into infrastructure and disaster management. The Asian community has

---

<sup>15</sup> Malaysia is part of Asia that consists of 47 countries (ADB, 2008).

both the need and to some extent the capacity, to focus on disaster risk management at the national and regional level (Ausaid, 2008). Unfortunately, there exists the embarrassment of regional mechanisms (bodies, organisations and venture) particularly in focused and broader regional engagement. The South Asia Association for Regional Cooperation (SAARC), Association of South East Asia Nations (ASEAN) and the Asia-Pacific Economic Community (APEC) are non-effective entities insecurely associated with individual regional organisations and national policy agendas (ADB, 2008). The support from international institutions is obvious. The United Nations, Red Cross Movement and other international humanitarian organisations have established a number of regional headquarters and also enduring disaster risk management programmes (e.g. warehousing stores, groups' coordination and training center) in Asia. However, there is still no formulation of a comprehensive disaster management framework between countries in Asia (Ausaid, 2008).

Basically, Malaysia and all other Asian countries have established their own National Disaster Management Mechanisms and for most this is a civilian Disaster Management Mechanism supported by variable levels of associated legislation, regulations and resources, including military capabilities (Shaluf *et al.* 2006). Civil society (including local non-government organisations and faith-based organisations) form an important component to the region's preparedness, response and recovery capabilities.

However, coordination and cooperation of agencies; and expertise, resources and knowledge of best practice in humanitarian action are diverse within this environment that is often challenging. Current disaster relief efforts have not lived up to the high standards because efforts in humanitarian and action plan have been frequently frustrated by the rejections from individual states authorities under the name of 'sovereignty' (supreme, independent authority) (Lai *et al.* 2009). ADB (2008) concludes that the Asia landscape of disaster risk management is complex and rather confusing (ADB, 2008).

#### **4.3.1 Action Plan**

ADB introduced the 'Disaster and Emergency Assistance Policy' (DEAP) in 2004. The DEAP was mainly initiated to provide guidance towards encounter response in the situation of country conflict, natural, technological and environmental hazards and health emergencies in Asia. It encourages developing countries to adopt strategies (suggested by



international treaties) in disaster risk reduction by incorporating it into their planning and development processes. The DEAP was formed from lessons learned from two earlier disaster policies in 1987 (Rehabilitation Assistance to Small Disaster Management Centers Affected by Natural Disasters) and 1989 (Rehabilitation Assistance after Disasters) and its implementation is directed more to rehabilitation and reconstruction assistance (ADB, 2004).

However, recent drastic approach and implementation only came to reality after Tsunami stroke Asia in 2004. Even the ASEAN Committee on Disaster Management (ACDM) was already established in 2003, ASEAN still suffers from ineffective and inadequate collaboration network amongst members, for example, no warning system before Tsunami strikes in ASEAN (Lai *et al.* 2009). The ASEAN Agreement on Disaster Management and Emergency Response (AADMER)<sup>16</sup> was only signed by the member countries in July 2005 in Laos as a result from a significant feature of the agreed HFA framework (Lai *et al.* 2009).

The support also comes from international institutions. According to Article 11 of Kyoto Declaration, developed countries are obliged to provide financial resources and technology transfer to developing countries (UNISDR, 2005). Subsequently, the United Nations International Strategy for Disaster Reduction (UN-ISDR), with the World Bank and the Association of Southeast Asian Nations (ASEAN) announced a joint cooperation, during the Bali Disaster Risk Reduction Forum in May 2009 that placed a framework for technical support from the UN and the World Bank to help the ASEAN formulate and implement strategies and action plans for disaster risk reduction and management (World Bank, 2009b).

In Asian countries after the Tsunami, interviews with individuals within and outside of government bodies, the UN and international NGO community suggest that the capacity of the newly formed national entities to manage disaster response was inadequate due to untrained and inexperienced personnel being placed in important decision-making roles (Bennett *et al.* 2006). UNISDR (2008) notes that the updated policy by the World Bank in March 2007 concerns earlier policies' lack of awareness to prevention and mitigation. The policies in relief efforts were focused only on the areas of the benefit from unlisted activities (e.g. donations, distributions of resources and executive orders). Bennet *et al.* (2006) argued that a range of mitigation measures for example, should be incorporated in

---

<sup>16</sup> Measures for standard operating procedures, training and capacity building, disaster information sharing, communication network, and rapid assessment team in ASEAN Countries.

international policies and by the major contributor (i.e. the World Bank) during recovery to promote vulnerability reduction such as land-use; environmental issues and community planning; improving building codes; and construction regulations. Thus, UNISDR suggests that all agencies in emergency projects need to be flexible in giving full cooperation and other partners in supporting comprehensive recovery. The output of the policy revision by the UNISDR (2008) reflected the need of aid agencies to accelerate the entire emergency project circle, be more transparent on risks in emergency operations and address early recovery implementation and financing.

Meanwhile, Oxfam, its partners and other NGOs began to advise and assist governments (i.e. Sri Lanka, India and Bangladesh) on how to provide shelter as people there felt the quality of shelters provided to them did not match the standards specified in the SPHERE Guidelines (2001) (Telford *et al.* 2006). The shelter design after Tsunami in 2005 suffered from neglect from authority due to lack of consultation with users especially in design (Morago, 2005). Therefore, Telford *et al.* (2006) suggests that a regulatory system (worldwide) is necessary to ensure predictably high quality in international disaster response. The international relief system should establish an accreditation and certification system to distinguish agencies that work to a professional standard in a particular sector. Disaster victims' satisfaction and guidance to the authority will be met appropriately with sufficient accreditation and a certification system for the international relief system.

The World Bank launched the 'Global Facility for Disaster Reduction and Recovery' (GFDRR) in 2006 in order to sustain the Hyogo Framework of Action (HFA) and International Strategy for Disaster Reduction (ISDR). GFDRR will expand and implement risk-reduction strategies in disaster prone areas, promote long term commitments and partnerships in the participated low and moderate income countries (ADB, 2008). Subsequently, provisions also have been made to set up 'corporate emergency' in ADB in order to mobilise resources from the World Bank and funds from donators (ADB, 2008). This corporate emergency is a rapid response committee for strategic advice and deploys trained emergency task teams. Emergency operations will then go through a single decision review meeting so as to speed up the process and authorisation of negotiations with the affected country.

#### 4.4 Malaysian Experience

From 1968 to 2004, Malaysia had experienced 39 disasters. The Tsunami in the year 2004 was the worst (Foong *et al.* 2006). 49 per cent was contributed by natural disasters. Heavy rain (primary disaster) caused floods and landslides (secondary disaster) dominated most of those natural disasters (Ismail, 2003). Poorly controlled land use, design of buildings, maintenance of equipment and machinery; attitudes of personnel in regulatory compliance all inevitably added to the potential of the disaster (secondary disaster) (Ishak *et al.* 2004). Moreover, failures in regulation and compliance were identified as the key vulnerability and disaster causes in Malaysia. Aini *et al.* (2007) found that organisational error and regulatory failures were the main types of hidden error that contributed significantly to the disasters with 53.6 and 37 per cent respectively. Unfortunately, local experience in Malaysia suggested by recent academic worked proposed that neither work on public officers' attitudes nor private officers follow regulatory compliance with the MNSC Directive 20 (Aini *et al.* 2006). However, there are four main contributions which explained the real scenario on local perceptions regarding public policy implementation in Malaysia.

Aini *et al.* (2006) argued that previous studies in Malaysia have gauged subject knowledge, attitudes and practices in sustainable development of teachers and general public but none on public officers. After a research, she found that public officers possessed good basic knowledge (70.1 per cent) in their own field and a positive attitude (mean of 3.86 on a scale of 1 to 4) towards compliance with policy framework. The research also showed that the level of compliance was rather fine (mean of 3.00) that indicates that those activities were fairly implemented. However opportunity for improvement is still wide opens particularly in optimising the use of available resources provided by their department (Aini *et al.* 2006). This research work in public officers' behaviours proposed that studies should be done to understand barriers that inhibit behaviour change from public officers in implementing national policies. It is important to identify the practical principles for public officers' participation because they should realise crucial roles and responsibility in sustainable development as an example to the public (Aini *et al.* 2006).

Perspective from the managers in private sectors' about the Malaysian National Security Council (MNSC) Directive 20 (see section 4.5.1, p.107) is the second main contribution to this research. The analysis from this research showed that 30 per cent of the Private Safety and Health Managers were unaware of the guidelines (Shaluf *et al.* 2003a).

However, 62 per cent of them believe that this MNSC Directive 20 is an essential guideline in the Health and Safety practice. They argued that the enforcement of the disaster regulations is the responsibility of authorities (Shaluf *et al.* 2003a). Thus, they (78 per cent) suggested that agencies responsible should be aware and ensure that application of the local and the international standards to the health and safety culture of Malaysia is always maintained at the highest standards (Shaluf *et al.* 2003b).

Thirdly, is about job satisfaction amongst employees (private and public officers) in Malaysia. They were only comfortable with their normal daily routine but not that of the MNSC Directive 20. Recently, managers find it hard to ignore the issue of job satisfaction at a time when the demand of meaningful work (work that is autonomous/self-sufficient towards effort and reward minded) is increasing. Ramayah *et al.* (2001) found that managers obligated as part of their moral responsibility to provide their employees with a satisfying work environment. The behaviour of satisfied workers will make positive contributions to the organisation. Studies have shown that income has a direct influence on job satisfaction (Fishbein *et al.* 1975; Fishbein, 1980). However, salary by itself was not an important factor to keep an employee in the job (Ramayah *et al.* 2001). They ranked confirmation of work placement as the most important followed by supervision and promotion. Meanwhile, co-workers assistance was ranked as average or neutral (not necessarily supportive) and argued that genders issue is not important to achieve job satisfaction. Thus, these variables are significant in doing research in relation to employees' behaviors in Malaysia (Ramayah *et al.* 2001).

The fourth contribution is about the level of disaster victims' satisfaction to temporary housing provided by the government in Malaysia. According to Foong *et al.* (2006) Tsunami victims in Kota Kuala Muda, Malaysia have shown a high level of satisfaction with the provision of temporary longhouses provided by the government because they were provided with the minimum 3 bedrooms to separate different genders and age groups; and there were also shared community space, storage and prayer room. Amenities were in some cases better than previous dwellings. However, the beneficiaries were actually unaware of non-compliance that exposed them to hazard. Temporary housing built after Tsunami did not fully comply with national rules and regulations (e.g. building codes and planning acts). There were many examples of non-compliance such as the bedroom size not according to specification; partition walls built of combustible instead of

non-combustible materials; no parking and open spaces as required; improper insulation and painting; and no front porch as a safety zone between the main entrance of the houses and the access road. The failure of the Malaysian Government to exercise the proper conduct of post-disaster provision has slowed the process of restoring the livelihoods (Foong *et al.* 2006).

#### **4.5 Evolution of Disaster Planning in Malaysia**

Historically, the May 13 Incident (13 May 1969 racial riots) in Kuala Lumpur involving mainly Muslim Malays and non-Muslim Chinese, resulted in the establishment of the National Operation Council (*Majlis Gerakan Negara-MAGERAN/NOC*) on 16 May 1969 to restore and implement law and order by establishing an unarmed 'Vigilante Corps', a protective army and battalions of police force. The Government also declared a national emergency state and suspended Parliament until 1971. When peace was restored, NOC (*MAGERAN*) was suspended. On 23 February 1971, the Government decided to establish National Security Council (*Majlis Keselamatan Negara-MKN*) to strengthen the public security and national defence and to maintain public order in the country (Aini *et al.* 2005).

The major transformation in the Malaysia Disaster Management Mechanism came only after the tragedy of the luxury condominium of Highland Towers collapsed on 11 December 1993. The chaos occurred when the explanation given by various parties on the causes of the disaster differed greatly. At first, no agency is admitted to takes responsibility for carelessness and negligence. The noticeable lack of local expertise in specialised rescue operations, improper planning of disaster management and lack of standardise rules and regulation prompted the government to review the existing provisions for disaster management and institute a new mechanism for disaster relief and management (Aini *et al.* 2005).

Even international communities were disappointed due to the absence of a pre-agreed emergency response plan when response teams from Japan, France and Singapore came to offer their assistance (Soh, 1998). The Highland Towers' tragedy set an exemplar and reference for future disasters management. Subsequently, the 'Policy and Mechanism on National Disaster and Relief Management' (see section 4.5.1, p.107) was formulated by National Security Council in May 1994 to coordinate all emergency agencies and handle relief activities during any major on-land disaster incident (Fakhru'l-Razi, 2001). In 1995,

the *MKN* office was reorganised and renamed as the National Security Division (NSD) (*Bahagian Keselamatan Negara-BKN*). Nevertheless, on 24 July 1997, *BKN* was again renamed as the National Security Council (NSC) (*Majlis Keselamatan Negara-MKN*) (Loo, 1999).

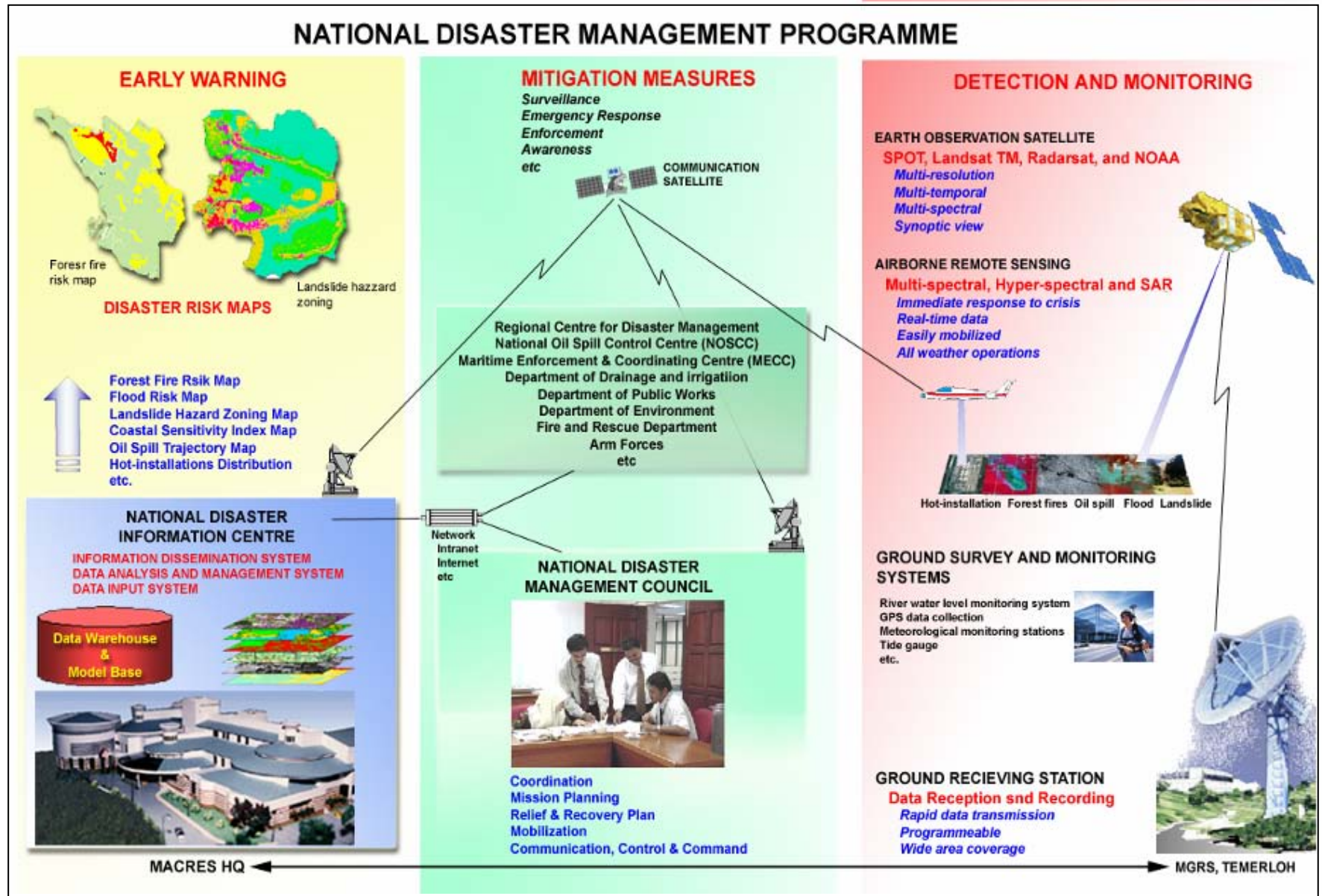
Back in 1968, The Royal Commission of Enquiry found the existing Kuala Lumpur Municipal Building By-Law to be outdated and recommended the formulation of the uniform building by-law throughout the country in order to meet the changing needs of the construction industry. The commission recommended, among other matters, changes in the present laws and bye-laws affecting the building industry that covered proposals for the introduction of new legislation for the control, tendering procedures and regulation of building operations on site. It also proposed the introduction of legislation regarding the workers safety and health (Barakbah, 1971). On January 1986, The Uniform Building by Law (UBBL) was finally implemented. Standard enhancement in UBBL never ends and keeps updating from time to time to meet latest developments in building and construction technology (Aini *et al.* 2005).

In order to keep up the standard of construction development in Malaysia, the Malaysian Construction Industry Development Board (CIDB) was formed under the federal statutory body in 1993 so as to co-ordinate all construction industry activities in Malaysia. The official name of CIDB is '*Lembaga Pembangunan Industri Pembinaan Malaysia*'. The Act was subsequently gazetted on 7 July 1994 and appointed on the 1 December 1994 for the date the Act came into force (Abdul-Aziz *et al.* 2007). In the middle of 1996, the Building Control Unit was established under the Ministry of Housing and Local Government. The Unit was required to coordinate and draw up guidelines, plans and procedures as well as provide expert advice to local authorities on the safety and stability of buildings (Jaapar, 2006).

Malaysia never set any specific annual budget in risk reduction. Approximately, the Malaysian government reserves a sum of USD 20 million per year for an emergency fund (ADRC, 2006). Meanwhile, a 'National Disaster Relief Fund' under the NSD has been set up to fund efforts in disaster relief. There are continued efforts by respective agencies (government's machinery) in risk reduction as shown in Diagram 4.1 guided by the MNSC Directive 20 in the national 'Policy and Mechanism on National Disaster and Relief Management' (see section 4.5.1, p.107).

The establishment of National Disaster and Information Management (NADDI) by the Malaysian Centre of Remote Sensing (MACRES), 'National Tsunami Early Warning System' was commissioned by the 'Malaysian Meteorological Department', the 'Storm water Management and Road Tunnel' (SMART) that was developed by the Malaysian Drainage and Irrigation Department (DID) are just some of examples in risk reduction and mitigation efforts made by government agencies. Several local universities initiated research centers related to landslide hazards in Malaysia such as the 'National Soil Erosion Research Centre' (NASEC) by the 'University of Technology Mara' (UiTM) and the 'Mountainous Terrain Development Research Centre' (MTD-RC) by the 'PutraUniversity of Malaysia' (UPM) funded by the MTD Capital Berhad (Jaapar, 2006).

Diagram 4.1: Malaysia Disaster Management Programme



Source: NSC (1997)



#### **4.5.1 The MNSC Directive 20**

Malaysia has a policy of disaster management called the 'Policy and Mechanism on National Disaster and Relief Management' (Aini *et al.* 2001). This framework contains directives that relate to disasters and relief management such as Directive 18 for the relief and management of disasters resulting from terrorist action; Directive 19 for establishing a special unit called Special Malaysia Disaster Assistance and Rescue Team (SMART) and Directive 20 for relief and management of natural and technological disasters. The policy statement for disaster relief operations in Directive 20 was purposely put in place to:

1. Mitigate the effects of various hazards;
2. Prepare for measures that will preserve life and minimise damage to the environment;
3. Respond during emergencies and provide assistance;
4. Establish a recovery system to ensure the affected community's return to normalcy.

The MNSC Directive 20 is actually an executive order by the Prime Minister as the Standard Operating Procedures (S.O.P) that stipulates the procedures to take in times of disaster (NSC, 1997).

In the MNSC Directive 20, a disaster is defined as “an incident that occurs suddenly, is difficult in nature, destructive of property or environment and may cause loss of life and disrupts the daily activity of local community” (Aini *et al.* 2001: 46) that include natural disasters like flood and landslide and technological disasters like factory explosion and fire. Through this directive in the NSC (1997), the disaster management is controlled in accordance with the scale of disasters as follows:

##### **A. Level 1 Disaster**

Local incidents which are within control and do not have the potential to spread. It is not complex and could cause only small damage to life and property. The form of disaster would not jeopardise local daily activity at a large scale. The District Level Authority is capable of controlling such incidents through district level agencies without or with limited assistance from outside.

#### B. Level 2 Disaster

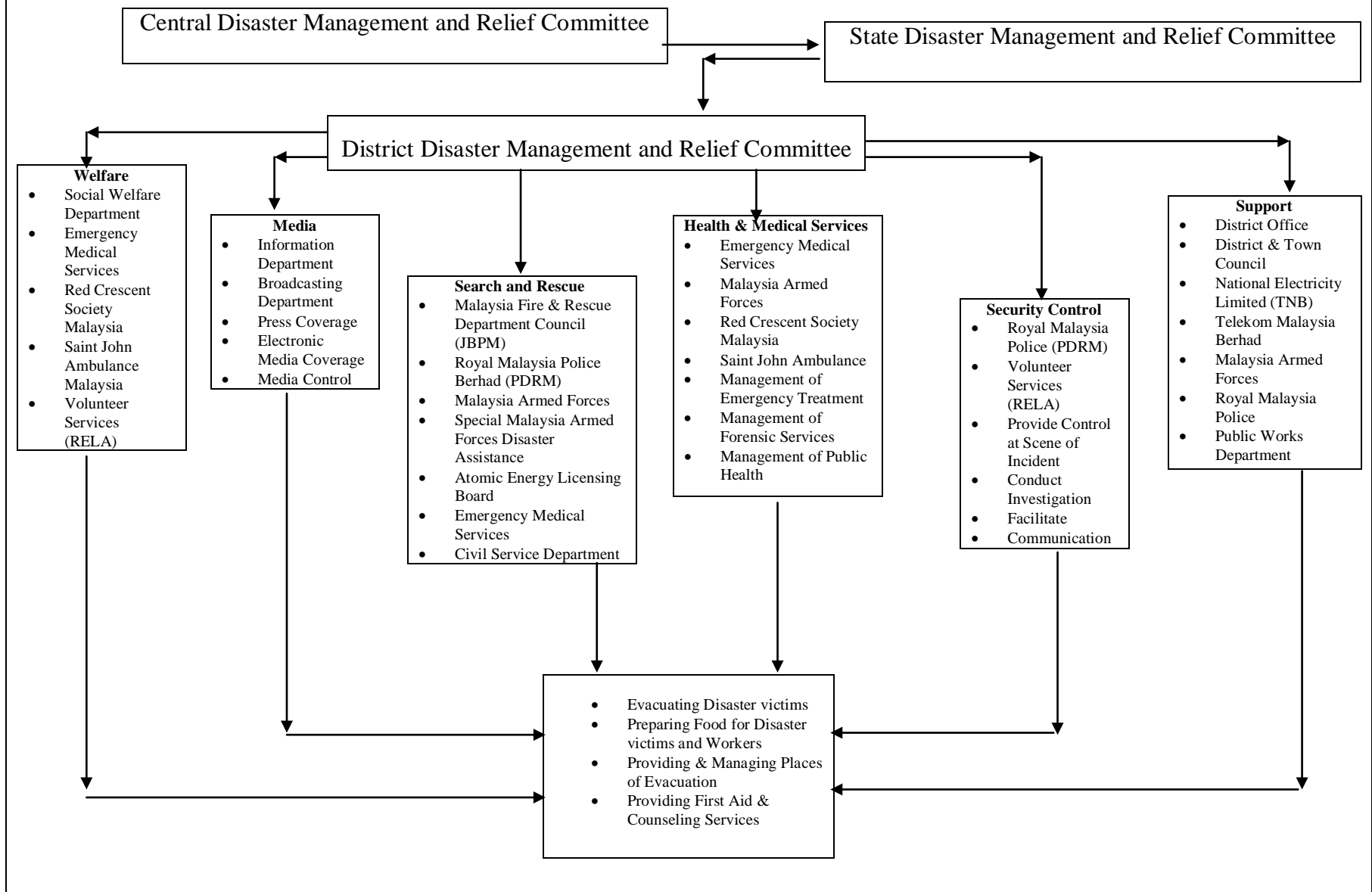
More serious incidents, covering a wide area or exceeding two districts with a potential to spread. Possibly would cause death and damage to a large number of properties. The incident also affects public daily activities. Being more complex than Level I Disaster and difficult in terms of search and rescue. The State Level Authority is capable of controlling such incidents with or without limited help from outside.

#### C. Level 3 Disaster

Any incident caused by Level III Disaster is more complex in nature and affects a wide area of more than two states. Such incidents could be handled by the Central Authority with or without foreign help. The classification on assessment relies on the district level authority or state level authority or central authority depending on the scale of the disaster and also determines if help from higher authorities is needed.

The Malaysia National Security Council (MNSC) Directive 20 states the mechanism on the management of natural and technological disasters including the responsibilities and functions of the various agencies under an integrated emergency management system (Moin, 2007a). The directive states that when a disaster occurs, the Disaster Management and Relief Committee (DMRC) have to be established at three different levels depending on the severity of the disaster, i.e. at the federal, state and district (NSC, 1997). Representatives from various private and government agencies fill up the place in this committee such as local authorities, Army, Police, the Civil Defense Department and many other relevant organisations as shown in Diagram 4.2.

**Diagram 4.2: Disaster Management Mechanism of Malaysia**



Source: NSC (1996)

The committee at the federal level is chaired by the Deputy Prime Minister. The state level is chaired by State Secretary, while the District level is chaired by District Officer. The National Security Council (NSC) is the secretariat at each level. Being the Secretariat, NSC will establish Disaster Operation Control Centre (DOCC) in order to coordinate all forms of disaster relief efforts as well as monitoring the progress and development of these efforts (NSC, 1997). The DOCC is responsible for forming:

A. District Disaster Management and Relief Committee (JPBBD) for Level I Disaster  
JPBBD is headed by the District Officer and should be mobilised to ensure all preparation activities for search and rescue operations, preparation of facilities and machinery, and other emergency aid (i.e. food and treatment) are executed and managed in good order and fully coordinated. On receiving a disaster report, the District Chief Police Officer and District Fire Brigade Chief should take appropriate steps assisted by main rescue agencies and supporting agencies and other organisation and voluntary bodies responsible in giving aid and rehabilitation to disaster victims. District Chief Police Officer and District Fire Brigade Chief would be commander and deputy commander of disaster operation respectively.

B. State Disaster Management and Relief Committee (JPBBN) for Level II Disaster  
JPBBN headed by State Secretary should be mobilised to ascertain that disaster management is carried out smoothly and well coordinated. The State Police Chief and Director of State Fire Brigade will be a commander and deputy commander of disaster operation respectively at this stage.

C. Central Disaster Management and Relief Committee (JPBBP) for Level III Disaster  
JPBBP headed by a minister appointed by the Prime Minister should be mobilised to ensure that all aspects concerning policy and decision making in search and rescue operation is carried out in a professional and effective manner. All related agencies and sources including search and rescue teams and emergency aid at district and state level shall be combined to face disaster that occurred under JPBBP. The Director of Internal Security and Public Order, Royal Malaysia Police (PDRM) and Deputy Chief Director of operation, JBPM respectively will be the commander and deputy commander of disaster operation.

‘Control Post on Scene’ (PKTK) and ‘Disaster Operation Controlling Centre’ (PKOB) should be established at the scene of disaster. Assistance required may be delivered to the district or state level in terms of expertise and equipment if it is found to be necessary. Membership of every committee is as shown in Table 4.1.

**Table 4.1: Membership of Every Committee in Disaster Mechanism**

<b>National Disaster Management and Relief Committee (JPBBP)</b>	
Chairman: Honorable Minister appointed by Prime Minister (2009 Minister of Information Datuk Ahmad Shabery Cheek)	
Members:	
1	Minister of Finance
2	Minister of National Unity and Community Development
3	Chief Secretary of State
4	Commander of the Armed Forces
5	General Director of Police Department
6	General Director of Health
7	General Director of National Security Division
8	General Director of Fire Brigade and Rescue Malaysia
9	General Director of Atomic Energy Licensing Board
10	General Director of Broadcasting
11	General Director of Information
12	General Director of Transportation Department
13	General Director of Public Work Department
14	General Director of Environmental Department
15	General Director of Social Welfare Department
16	General Director of Working and Health Security Department
17	General Director of Meteorology Service Department
18	General Director of Civil Aviation Department
19	General Director of Geology Research Department
20	General Director of Irrigation and Drainage
Representative of General Solicitor Budget Director for Minister of Finance General Director of RELA Also Present: Other Concerning Officers Secretary: Director of Crisis and Disaster Management Unit, National Security Division (BKN) Prime Minister’s Department	

<b>State Disaster Management and Relief Committee (JPBBN)</b>	
Chairman: State Secretary	
Members:	
	State Police Officer Chief
	Brigade Commander (ATM)
	Director of State Fire and Rescue Department
	Director of State Health Department
	Director of State Public Works Department
	Director of State Social Welfare Department

<b>State Disaster Management and Relief Committee (JPBBN)</b>	
	Director of State Information Department
	Director of State Broadcasting Department
	Director of State Civil Defence Department
	Director of State Environment Department
	Director of State Workers Security and Health Department
	Director of State Meteorology Department
	Director of Civil Aviation Department
	Director of State Irrigation and Drainage Department
	Director of State Geological Survey Department
	Director of Transport Department
	Director of Malaysian People Voluntary Alliance (RELA)
	Manager of State STMB (Malaysia National Telecommunication Agency)
	Manager of State TNB (Malaysia Electrical Power Agency)
Also Present: Other relevant officers	
Secretary: Director of National Security (BKN) State Division	

<b>District Disaster Management and Relief Committee (JPBBD)</b>	
Chairman: District Officer	
Members:	
	Chief of District Police Officer
	District Health Officer
	District Engineer, Public Works Department
	Representative from Malaysian Armed Forces (ATM)
	District Council Secretary
	District Social Welfare Officer
	Officer of District Civil Defence Corporation
	District Information Officer
	District Engineer, Irrigation and Drainage Department
	District RELA Officer
	District TNB Officer
	District STMB Officer
Also present: Other related officers	
Secretary: Assistant Director, National Security Division (BKN) District Division	

Source: NSC (1997)

Moin (2007b) notes that officials must comply with the MNSC Directive 20 alongside other national legal frameworks in development process (see section 4.5.2, p.114) as follows:

1. Land conservation Act;
2. Environmental Quality Act 1974;
3. Local Government Act 1976;
4. Road, Drainage and Building Act ;
5. Occupational Safety and Health Act;
6. Uniform Building By-Laws;
7. Town and Country Planning Act 1976 (Act 172);
8. Infectious Disease Act;

9. Road Transportation Act;
10. Internal Security Act;
11. Police Act;
12. Criminal Procedure Code;
13. Fire and Safety Act;
14. Related Acts etc.

Simultaneously, any related international guidelines are considered as the same reference in emergency management and relief work because the Malaysian Government agreed to implement the contents in Hyogo Framework (Moin, 2007a) (see section 4.5.2, p.114). Two main basic texts provide the foundation for the response of the international community and aid organisations in humanitarian emergencies as mentioned by Corsellis *et al.* (2005) as follows:

1. 'Handbook for Emergencies' (UNHCR, 2000a);
2. 'Humanitarian Charter and Minimum Standards in Disaster Response' (Sphere Project, 2004).

Recently there is another new version of shelter guidelines called 2008 Preliminary draft Shelter Standards and the 2010 Edition 'Humanitarian Charter and Minimum Standards' in Disaster Response (Shelter Centre, 2007). However these standards are still waiting for comment by the stakeholders in disaster community.

The Malaysian Government hopes that with the creation of a Disaster Management Mechanism as reflected in MNSC Directive 20, the handling and resolving of disaster could be carried out in a more coordinated manner with the integrated involvement and mobilisation of related agencies. All these will in turn ensure that Malaysia has credible disaster management machinery that is able to perform in unpredictable disasters (CDM, 2005). The policy document however is not available for public scrutiny for reasons of national security especially restriction of other directives (e.g. Directive 18 is regarding terrorist action and Directive 19 in establishment of special unit). Most of the information only exists in the form of internal department communications (i.e. written executive orders). Even then, documents were circulated for office use only.

#### **4.5.2 Compliance with the MNSC Directive 20**

Malaysia has taken the preventive measures as a result of international and national pressure to protect the public (Shaluf, 2003b). However, Malaysia is still in the phase of restructuring and reorganising the National Disaster Management Mechanism to fit in the HFA (Aini *et al.* 2007). Malaysia has just adopted the HFA in the National Disaster and Fund Management Committee Meeting on November 2005 during the National Disaster and Relief Management Committee Meeting chaired by the Deputy Prime Minister. The committee meeting was held as a result from the ASEAN Agreement on Disaster Management and Emergency Response (AADMER-HFA input) in July 2005 in Laos.

According to the HFA, states (country) must consider acceding to, approving or ratifying, relevant international legal instruments (e.g. the Humanitarian Charter and Minimum Standards: based on the principles and provisions of international humanitarian law, international human rights law, refugee law and the Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organisations) and to make sure they are implemented. Implementing the HFA will also help Malaysia to reach the ‘2001 Millennium Development Goals’ (reducing extreme poverty, reducing child mortality rates, fighting disease epidemics such as AIDS and developing a global partnership for development by 2015 by all United Nations members’ states) (Moin, 2007b).

Moreover, an important element in the plan of action of the Habitat Agenda is the need to monitor progress towards the goals of the Agenda. Malaysia is one of the countries out of 171 governments which has adopted the Habitat Agenda at the Habitat II<sup>17</sup>, Istanbul 1996 (UN-HABITAT, 1996). Malaysia, as a member of the UN, was obligated to adopt the goals and principles of adequate shelter for all and sustainable human settlement development in an urbanising world, especially the right to adequate housing, as provided for in international instruments (UN-Habitat, 2001a).

According to the Habitat Agenda, it is essential to evaluate the impact of policies, strategies and actions on the provision of adequate shelter and the achievement of sustainable human settlements development. As a result, Malaysia is now in the phase of enhancing the coordination of responsibility between the government bodies in terms of disaster management mechanism. Subsequently, the features were adapted to the Malaysian

---

<sup>17</sup> It emphasises that all partners of the Habitat Agenda (including local authorities, communities and the private sector) should monitor their own performance in the implementation of the Agenda regularly.



standard operating procedure in disaster management (MNSC Directive 20) (Aini *et al.* 2007). The preventive measures have been taken through establishment of authorities to set major hazard control regulations, enforcing the regulations, assessing the safety reports and emergency plans, conducting audits and accident investigations (Shaluf, 2003a).

In the Disaster Operation Control Centre (DOCC), NSC (as the secretariat to DMRC) will monitor and ensure that disaster management are effectively and smoothly implemented without compromise to comply with the national and international legislations (NSC, 1997). DOCC have to ensure that policy and mechanisms in disaster management are observed and at the end to carry out a disaster post mortem (enforcing of the relevant regulations; and carry out inspections, reports and audits) (NSC, 1997). 'Crisis and Disaster Management Unit' (CDM) under this NSC was established in 2003 and responsible for development strategies and recommendations to improve inter-agency and inter-stakeholder collaboration on environmental management, development planning and biodiversity conservation of the highlands and to ensure sustainable economic development (NSC, 1997). The major compliance control in Malaysia is accomplished through three elements stipulated in the MNSC Directive 20: they are identification, prevention and mitigation (Shaluf, 2003b).

Executive order in the MNSC Directive 20 by the Prime Minister is the standard operational procedure to comply with (S.O.P) for all departments involved in disaster management. Even if the complete version of the MNSC Directive 20 is restricted, the contents circulated are clear to all departments in the Mechanism of Disaster Management in Malaysia. The MNSC Directive 20 specifies in writing what should be done when disaster strikes, when to use certain clauses of it, and where responsibility lies. This directive includes objectives, scope of areas, stages of the process, responsibility and review of implication at the end to make sure that the procedure continues to be useful, relevant and up to date (Aini *et al.* 2007). The MNSC Directive 20 also provides:

1. An opportunity to demonstrate professionalism, professional accountability and responsibility to government;
2. Platform tackle any issue in the right way parallel with other government departmental SOP such as Health, Safety and Environmental Policy; department desk file; department work procedure manual; and the National Urbanisation Policy

(Sarji, 1996). Most importantly, SOP will guide the agencies responsible to comply with rules and regulations in it.

Whenever non-compliance was identified, it is a useful means of reviewing procedures and identifying any that may need modifying because non-compliance will affect the performance and vulnerable to potential risk to regulatees and even to agencies involved. Non-compliance refers to any failure to comply with the federal regulations or the requirements or determinations of the MNSC Directive 20 (Fakru'l-Razi, 2001). Non-compliance can be relatively minor, such as trouble with bureaucracy and scopes of work within agencies involved, or it can be serious, such as non-compliance that adversely affects the rights and welfare of regulates and participants, such as inhabitable<sup>18</sup> rooms; incompatible materials (e.g. non-combustible and toxic materials); no open spaces or buffer zone for gathering point in case of fire; improper insulation and painting; unacceptable ventilation; no running water supply; unmaintained toilet; and unsafe workplace for the agencies as service provider (Shaluf, 2003b). All of the hazards (e.g. health, fire and chemical reactivity) will expose the victims as occupants and also the agencies working around them.

Caution must be exercised according to rules and regulations in the MNSC Directive 20 so as to avoid introducing a potentially more hazardous situation and the agencies responsible can do the job effectively and safely (Shaluf, 2003b). Although changing procedures in MNSC Directive 20 without unanimous approval from DMRC puts agencies in a state of non-compliance. In such cases, bureaucracy in the process of decision making might be the cause of changes to the procedures in the MNSC Directive 20. Bureaucracy is even more complicated at some point in the process of decision making throughout the agencies involved in disaster management mechanism that include the amount of specialisation in areas of work and responsibility; the levels of management and their consequent size; the grouping of departments together for functionality of expertise; and the kind of integrative mechanism for control over work done. Bureaucracies will ultimately determine how efficiently the desired goals will be acquired (Mouzelis, 1968).

Finally, agencies involved must conduct review or report in a way that protects the rights and welfare of human subjects. This review or report is to differentiate the definitions

---

<sup>18</sup> The term inhabitable refers to 'not fit to live in' adapted from Lawrence, R. J. (2005) Housing and Health: A Way Forward, *Built Environment*, Alexandrine Press, 31.4.315-325.

of MNSC Directive 20 variations according to rules and regulations and issues of non-compliance from undesirable events. The review or report will then send to the DMRC for further action. Any amendment must first inform to the knowledge of the Prime Minister as the honourable executive decision maker in the DMRC (Moin, 2007b).

#### **4.6 National Housing Rights Legislations**

According to the Centre on Housing Rights and Evictions (COHRE) in 2001, there was no information in the United Nation database on relevant legislative clauses of national housing rights legislation available from the United Nation country members of Malaysia, Thailand, Singapore, Myanmar and Brunei Darussalam (UN-HABITAT, 2002). However, Article 8 by Clause (1) in the Constitution of Malaysia provides that ‘all persons are equal before the law and entitled to its equal protection’. Malaysians are all protected under present laws such as:

1. The Syaria Law (only applicable to Muslims);
2. The civil and criminal codes; land use, planning laws and regulations;
3. Building codes and standards, development laws; and environmental standards (Hashim, 1976).

In some cases there are some inconsistencies of national laws with international human rights standards. For example, the considerations are most likely to the subject of culture, race and religious. According to Constitution of Malaysia, there are special clauses such as under Article 153 for the reservations and special provisions for the Malays<sup>19</sup> and the Bumiputras<sup>20</sup> of Sabah and Sarawak and under Article 149 that allows the Parliament to pass laws to suspend a person's fundamental rights if a person is a threat to national security.

Smith (1981) argues that housing policy can only be a part of overall policy formulation towards urbanisation and that its scope and achievements interact with other sectors. That is the main consideration in placing any housing programme to suit with other policies in any country. Housing is the matter of physical development to fit into the broader pattern of present national economic and social objectives by trying to rectify what

---

<sup>19</sup> A native racial category encompassing peoples of South East Asia and sometimes the Pacific Islands (Hashim, 1976).

<sup>20</sup> The ethnic group located primarily in the peninsula of Malaysia and parts of Sumatra and Borneo (Hashim, 1976).

is wrong with the housing 'envelope' such as reactionary (eliminate housing problem for cosmetic reasons), alien (the use of imported technologies and colonial legacies) and innovative (create, develop and manage within available limited resources). Thus, housing policy most commonly does not 'stand alone' (Smith, 1981).

In Malaysia, there is no comprehensive national housing policy in terms of any housing development (Shuid, 2006). Most of the housing development refers to the guidelines such as the New Economic Policy and Vision Development Policy (as shown in Appendix 9, p.341). The main reference is the Malaysia Planning that is renewable every five years (Razali, 2001). Malaysia Planning comprises the components of thematic areas to the right to adequate housing such as general policy statements on housing, legal security of tenure, protection against forced eviction, provision of affordable housing for the poor and compliance with national laws (e.g. Housing Developers Act; Environmental Quality Act 1974; Local Government Act 1976; Road, Drainage and Building Act 1974; Strata Title Act 1985; Uniform Building By-Laws; and Town and Country Planning Act 1976).

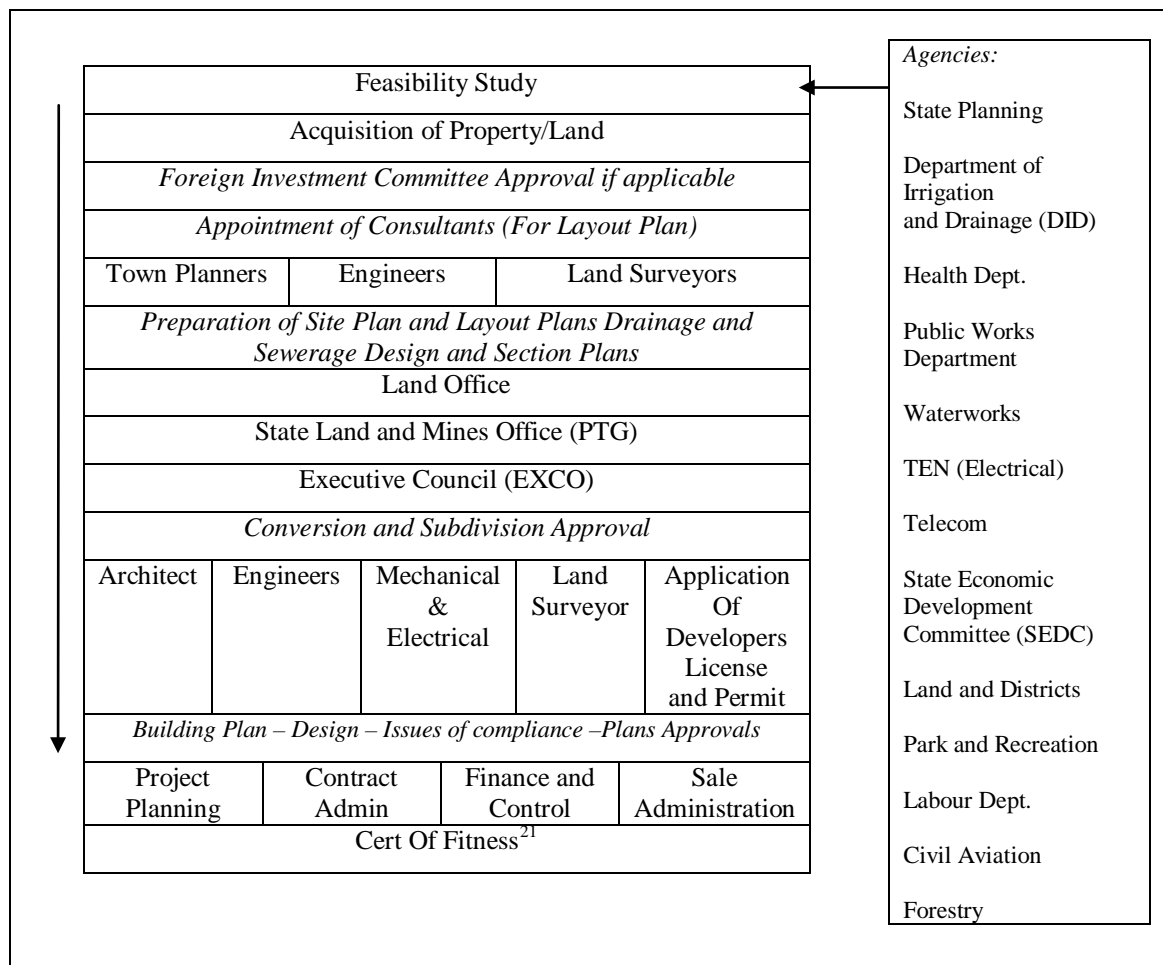
However, as argued by Barakat (2003) the policies and requirements for providing housing after a disaster should be defined clearly because housing is considered as an essential necessity for human being and provides a platform to livelihood and other survival opportunities. In Malaysia, the MNSC Directive 20 in the 'Policy and Mechanism on National Disaster and Relief Management' is the main instrument for providing housing for a post-disaster programme (Aini *et al.* 2005).

The process of providing shelters to disaster victims started from temporary shelters (e.g. conversion of community hall, cabin and relatives' accommodation), transitional housing and permanent housing (Foong *et al.* 2006). Still, emergency housing policy is not clearly defined in Malaysia and it is always controversial due to budgeting, quality of construction, procurement and sustainability issues in project developments. Considerations are not only shown to the international legislation rather to situational legislation (local demands) in providing emergency housing in Malaysia. For example, the requirements (according to national standards) are even higher than other international standards such as 3 bedrooms to separate different genders and different worship halls for different groups of people due to religious and cultural demands.

#### 4.7 Emergency Housing in Malaysia

In the land development process in Malaysia as shown in Diagram 4.3, related written and unwritten rules (regulators' behavior and skill) on land and property may initiate constraints on agents' decisions to undertake land development (Omar, 2002). Besides the positive effect of planning and controlling, environmental requirements (e.g. soil condition, pollution and secondary hazards) may lengthen the duration of the land development process.

**Diagram 4.3: Land Development Process in Malaysia**



Source: Tan (2001)

Foong *et al.* (2006) notes that the challenge in rehabilitation and reconstruction projects for natural disaster stricken areas have always posed questions to the physical,

<sup>21</sup>According to the Uniform Building B-Laws 1984 [G. N. 5178/85] of Malaysia, the Certificate of Fitness is an official document issued by the Local Authority to acknowledge that a certain building is safe and can be occupied.

social and financial aspects of the disaster victims. She added that livelihoods of the affected community could be better restored with appropriate measures undertaken by the respective governments in executing rehabilitation and reconstruction projects. Thus, enhancement (rectification) of socio-economic rules and administrative frameworks in Malaysia is a must from time to time to suit the latest requirements in the process of land development and the needs from disaster victims (Abdul-Aziz, 1999).

Foong *et al.* (2006) also describes that the Tsunami in 2004 was the first time in the history of Malaysia that its government was forced to manage such a great disaster and might be the benchmark to rehabilitation and reconstruction. Emergency evacuation and relocation plans were constructed quickly. In Kota Kuala Muda, construction of temporary longhouses as shown in Fig. 4.1 and rehabilitation works started three weeks after the disaster and was completed within two weeks.

**Fig. 4.1: Temporary Longhouses and Typical Floor Plans**

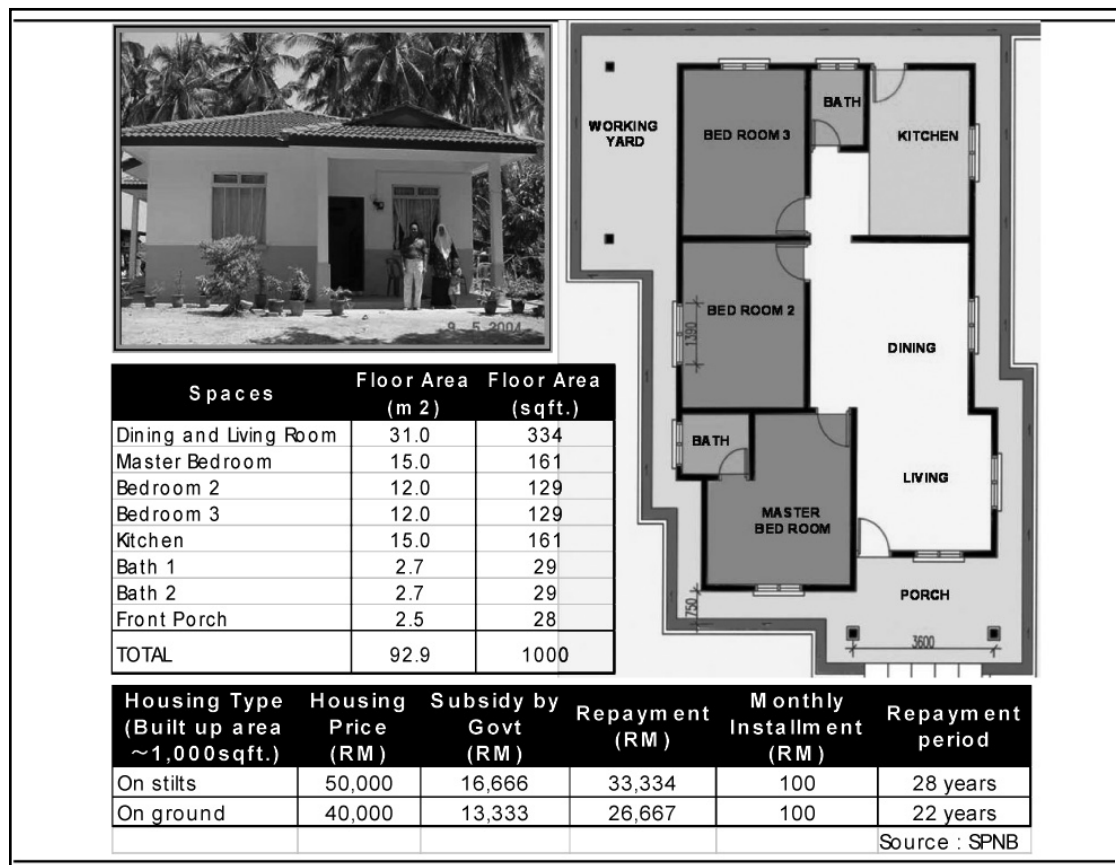


Source: Foong *et al.* (2006)

One hundred and four affected families whose houses were no longer inhabitable due to the Tsunami in thirteen fishing villages were relocated to these temporary longhouses before being moved to their permanent housing. One hundred and twenty units of temporary hybrid (e.g. timber and steel) longhouses were constructed approximately one kilometer inland from the affected shore. Each unit of the temporary longhouses is approximately 70m<sup>2</sup> in floor area, with three bedrooms, a living/dining room, a kitchen and two bathrooms. Ninety-six tsunami affected families whose houses were totally destroyed and eight affected families whose houses were being repaired were relocated to these units.

The remaining units are used as management office, community room, prayer room and room for storage. Proposals for developing permanent housing (i.e. a New Town Development Plan) are being carried out in collaboration with a sole developer, The National Housing Corporation (SPNB), established under the Ministry of Finance of Malaysia as shown in Fig. 4.2.

**Fig. 4.2: Rumah Mesra Rakyat Programme (RMR) Housing and the Loan Repayment Scheme**



Source: SPNB (2006)

However, the Tsunami affected community in Kota Kuala Muda shows that they were more concerned about their financial and social recovery compared to physical recovery (Foong *et al.* 2006). A majority of them are still struggling for their livelihoods after the disaster despite showing a high satisfaction level with the provision of temporary longhouses and the new permanent housing. Foong *et al.* (2006) concludes that rehabilitation measures for immediate relief have failed to recognise that the major cause of the slow progress in restoration is due to the inability of the disaster victims to secure their

livelihoods. The failure of the Malaysian Government to exercise the proper conduct of aid provision has dragged the process of restoring the livelihoods of many disaster victims (Foong *et al.* 2006). Thus, Lizzarralde (2001b) suggested that developing countries should also learn not only from international legislations and cases from developed countries but also from neighbouring countries that locally similar in many aspects.

#### **4.7.1 Emergency Housing in other Developing Countries**

Trends in housing policy are very similar in the developing countries after a disaster strikes (Smith, 1981). The trends in many reconstruction programmes in the third world countries however continuously fail to help poor communities recover from destruction (Lizarralde *et al.* 2001a). Globally, most reconstruction programmes implemented by important institutions in disaster-relief have produced insufficient results to respond to the demand of post-disaster housing and development in the long term. As mentioned by Lizarralde (2001b), most frequent paradigms used in post-disaster reconstruction strategies are the local community and limited technology-based approaches. In the last fifty years, these strategies have led to a variety of organisational and technical responses and have been applied in four main levels that consist of the reconstruction policies, the reconstruction strategy, the project for reconstruction and the output per se (Lizarralde *et al.* 2001a).

Thus, Bhatt (1999) argues that on site services and projects were condemned due to the possibility of them being ‘rubber-stamped,’ that is the development being copied exactly or nearly the same from other developments without appropriate consideration to the new adaptable situation (e.g. repetition, inappropriate distribution of private and public spaces and overcrowded houses). These types of services also led to failure in reconstruction programmes especially in the aspects of technical, architectural design, organisational design, logistics and administration because lack of local understandings.

Da Silva (1980) recommended the ‘pluralist’ approach (in project application) that emphasised different levels of services in project reconstruction; project groundwork and management; components production and erection (assembly); and funding. Meanwhile, Keivani *et al.* (2001) introduced ‘multiplicity’ in the provision of housing that include all beneficiaries (participants) in the reconstruction project. Both approaches are supporting each other toward accomplishment of project missions even in developing countries where building progression has almost entirely been done ‘in-situ’ (in the place). According to the



‘pluralist’ approach, seven variables (five in project preparation and two in management) were identified in order to maximise opportunity and participation from survivors and providers in reconstruction programmes as follows:

1. Define Outputs: The process of post-disaster situation in identifying and building sensible initiatives (benefit to victims) at multiple levels (Anderson, 1999);
2. Acquisition: Potential home owners, land owners and renters (Gilbert, 1997; Gough, 1998);
3. Architectural flexibility: They should consider architectural diversity at four levels: (i) plot sizes (and even forms), (ii) different housing designs (in cases where designs are done or suggested by professionals), (iii) flexibility to adapt the house to different occupancy needs and (iv) flexibility in the house to grow in the future according to developing needs or desires of residents (Bhatt, 1999). Learning from the previous cases (see section 4.8, p.124) such as in earthquake aftermath in Turkey and China, the design also should improve the quality of life of numerous families; reducing residents’ vulnerability to future natural hazards and yielding accepted; and desirable construction forms and technologies (more case studies of reconstruction project are as shown in Appendix 10, p.343);
4. The policy is usable in any possible different scenarios: A complete reconstruction policy requires tackling the demand of both provisional and permanent housing for each of these cases: (1) non-affected housing, (2) housing affected by the disaster subject to safe conditions for the residents (repairing the house is more effective than reconstruction), (3) housing affected by the disaster that cannot be occupied due to unsafe conditions for the residents (repairs are more difficult or more expensive than reconstruction: affected residents in this group might be homeowners or renters) and (4) shortage of pre-disaster housing and homelessness (Lizarralde, 2000);
5. Housing typologies: Creative typologies and innovation in post-disaster housing (e.g. spread low-density layout, lack of community spaces and sensibility in the design of the units) (Gunawan, 1999);
6. Resources: To address different needs in reconstruction programmes of the survivors according to their existing (and very often inadequate) resources. Some of

those resources might come in the form of materials, loans, subsidies, tax incentives, education and tents (Hewitt, 1998);

7. Information and education: To the affected community, mass media, donors and decision makers (Davis, 1981).

Lizarralde *et al.* (2001a) suggested that project planner should put into consideration the organisational internal aspects (e.g. funding, physical space, qualification, information presentation, resources available) in delivering any reconstruction projects. Multiplicity in the provision of housing, that is to say, in the sharing of responsibilities and the organisational arrangements between the participants involved in housing initiatives. Keivani *et al.* (2001) describes that participants are the public, private, private unofficial sector or the community base organisations. In the general performance, procurement has a direct influence in reconstruction progress (Mohsini *et al.* 1992; Katsanis *et al.* 1997). The arrangement of organisational and responsibilities distribution must then consider the aspects of local participation in decision-making in the building process in housing provision (Lizarralde, 2000).

Every reconstruction programme has particular characters that are not easy to generalise because every disaster is unique (Yin, 1984). Therefore, Keivani *et al.* (2001) suggested that communities must be ready for the new pluralist and multiplicity (participation) approach of the affected community. The regular housing policies in the Third World adopted, as a model, a more integrated housing policy of plurality inspired by developed countries (Keivani *et al.* 2001) and translated by the World Bank (2000) and UN-Habitat (2001a) in order to implement it in the developing countries.

#### **4.8 Lesson Learned from Disaster Cases in Housing**

The natural disaster cases in Asia and developing countries were, typically, likely to relate to seismic behaviour other than heavy rain (Spence, 2009). Dogangun (2005) argued that most houses in the third world countries are built by local builders and owners who do not need to adhere to seismic codes. The housing stock there is what can be described as 'second generation' housing where traditional techniques and materials are mixed with new materials, such as reinforced concrete. This new breed of housing lacks funds and understanding of earthquake resistant techniques, making these houses vulnerable (Spence,

2009). Below are some examples of non-compliance cases where some buildings collapsed while others did not.

A. Marmara Earthquake, Turkey and Reinforced Concrete

Many important steps were not taken in Turkey prior to the 17 August 1999 Marmara earthquake that caused numerous structural (physical) damage and casualties (Bruneau, 2002). Bruneau (2002) argued that most existing structures were not built in compliance with building codes and the degree of structural damage and number of casualties would have been greatly reduced if had more effective enforcement to these codes. The existence of the latest 1998 and 1975 Turkish building code represented much of the knowledge on how to design effective earthquake-resistant buildings especially to the enactment of effective seismic-design regulations. One such example of a building with minor damages in the Marmara Earthquake was the Hyundai plant, designed in 1997 in dual compliance with the latest Turkish and Korean seismic provisions with the use of correct materials (e.g. reinforced steel bars instead of smooth bars normally used for residential buildings and no plastic/steel hinges at the structure surface) and building design where the structure consists of long span moment resisting frames. The design was accomplished in awareness of the numerous fractures observed following the Northridge Earthquake, 1994 (Bruneau, 2002).

In earthquake, the ability of reinforced concrete columns, beams and beam-column joints to sustain deformation demands depend on how well the seismic design and detailing requirements were followed, both in design and in construction (Bruneau, 1993). Thus, the community (officials and public) requires the need for earthquake preparedness, implementation and enforcement (identify hazards created by buildings design and construction) of a comprehensive code for the design and construction of new earthquake-resistant buildings. The seismic codes are providing an adequate level of protection and a financially sensible formulation that will be compatible with societal expectations following a major earthquake (Bruneau, 1997). However, as argued by Bruneau (1997) the situation still remains that earthquake resistant design is not mandatory in many parts of the world because to comply with seismic codes is back on the basis of costs.

B.     The Kocaeli and Duzce Earthquakes, Turkey and Traditional Woodframe Buildings  
Traditional wood frame buildings were commonly constructed in Turkey until approximately 1960. After that, reinforced concrete and masonry buildings have been preferred. However, reinforced concrete buildings presented a high level of damage compared to traditional buildings which performed relatively well during the 12 November 1999, Kocaeli and Duzce Earthquakes (Dogangun, 2005). These wood construction buildings are protected by brick fire breaks as required by the Turkey legislations (Tobriner, 2000). The brick walls (i.e. masonry infill) contributed significantly to the lateral stiffness of buildings during the earthquake and controlled the lateral drift and elastically resisted seismic forces. Once the masonry infill's failed, the lateral strength and stiffness had to be provided by the frames alone, which then experienced significant inelasticity (if constructed by reinforced concrete) in the critical regions (e.g. slope area and unstable soil) (Bruneau, 2002).

In most cases as revealed by building inspectors after a sequence of earthquakes, buildings depend much on the level of elasticity resistance and methods of structural construction connected to the base platform or soil stability (Dogangun, 2005). The failure of platform or soil to sustain seismic activity could most possibly contribute to building/structure instability. Wood frame buildings have better seismic behaviour or performance compared to reinforced concrete because wood naturally high in elasticity (Dogangun, 2005). Statistically, 60 out of 814 reinforced-concrete structures were heavily damaged or collapsed, only 4 out of 789 two-to-three-story traditional buildings collapsed or heavily damaged (Gulhan *et al.* 2000). It was suggested by researchers that buildings with traditional wood structural systems should be used in the earthquake regions instead of reinforced concrete buildings due to the nature (e.g. crack, loosening and dislodgement) of concrete and masonry (Dogangun, 2005).

C.     Wenchuan Earthquake, China and Rapid Development

The Chinese Government learned from the 1979 Tangshan Earthquake that killed a quarter-million people. Since then, the government requires that new structures be built able to withstand major quakes. However, in the 30 August 2008 Wenchuan Earthquake, many residential buildings remained intact while many others, particularly schools and hospitals crumbled. China's earthquake regulations class this province as equivalent to a 7 on the

Mercalli Intensity scale (effects of an earthquake on the Earth's surface, humans, objects of nature and man-made structures on a scale of I through XII that XII is total destruction). The collapse of schools, hospitals and factories raises questions about China's enforcement of building codes, adding to existing concerns over environmental standards, energy consumption and overall public investments (Wang, 2008).

Xiulan (2008) argued that the major lesson learned is probably the lack of adequate awareness and attention for disaster risk reduction (prevention and mitigation) during national rapid development. China went through rapid construction development from the year 2000 until now (Xiulan, 2008). The central government was urged to provide free education and improve the quality of rural school building or built new facilities within limited funds. As a result, legislation was backed by investment. Since then, evidence has indicated that the enforcement of building codes is a major problem and building safety was largely ignored (Wang, 2008). Shoddy construction was likely to have contributed to building collapses after the earthquake (Xiulan, 2008). China Earthquake Administration (the government body) reported that the steel rods in column, concrete block and load bearing walls were obviously thin and did not comply with the building code (Wang, 2008). Arguably, China is the world's largest producer of cement (Wang, 2008). Reports also revealed that if buildings were designed according to building code, the building structure would have at least been sustained for a few minutes critical for saving lives (Spence, 2009). A firm example would be the 1970s building of Liu Han Hope School that did not lose a single student even though the school building was also severely hit by the earthquake (Wang, 2008). The school was built using reliable construction methods (e.g. the use of building-grade concrete) that comply with the national building code.

Moreover, it was reported that the disaster community in China lacked the capacity for quick appraisal of emergency situations; inadequate preparedness (equipments for rescue operation and materials for emergency response); and coordination mechanism for the involvement of NGOs and civil society in general (volunteers) (Wang, 2008). There is also the issue of catastrophic risks preparedness, including the needs for disaster insurance and other financial mechanisms (Henjian *et al.* 2003). Chinese government was advised by scholars to learn from Japan which has policies to make school buildings of a higher standard against earthquake hazard that not only protect students but also serve as local evacuation centres when disasters happen (Noji, 1997).

#### D. Hurricane Andrew, USA

Building codes are often not enforced in hazard-prone areas (Colin *et al.* 1989). Building codes designed to protect the structure against hurricanes in the case of Hurricane Andrew, are not well enforced. A significant amount of Hurricane Andrew's damage on the 1 August 1992 could have been prevented if building codes had been enforced and individuals taken protective measures (e.g. window storm shutters and install roof straps or additional clips) in advance of the disaster. Unfortunately, authority had inadequate staffing and training to enforce these codes (Burby *et al.* 1998). On the other hand, individuals perceived a low probability of a disaster causing damage to their home (Kunreuther, 1996). Most homeowners, private businesses and the public do not voluntarily adopt cost effective measure to reduce their potential losses from future storms. According to the Insurance Information Institute, USA, twenty five per cent of the insured losses could have been prevented through better building code compliance, enforcement and individual preventive measures (Kunreuther, 1996).

#### E. Highland Towers, Malaysia

The first block of twelve stories apartments collapsed on 11 December 1993 after ten days of continuous rainfall. Quite surprisingly, the remaining two blocks are still standing but remain unoccupied for fear of instability. There were multiple probable underlying causes of the disaster were: improperly designed rubble walls, the drainage system was not constructed according to plans, old rail piles used for the foundation, the indiscriminate chopping of trees around the area, soil movement, buckling of the steel foundation, and sloppy management by the construction company were attributed to the disaster (Wong, 1999). However, the Court concluded based on a report from the commission of inquiry by The Ampang Jaya Municipal Council (local authority) that the immediate cause of the disaster was due to the high wall behind the second tier car park of Highland Towers Condominium sliding and moving backwards. After thorough investigation a few years after the tragedy, the local authority was found guilty due to laxity and negligence in their responsibilities for non-compliance with the present legislations. It was apportioned fifteen per cent of the post-disaster contributions (Aini *et al.* 2001). Consequently, a new mechanism for disaster relief and management in Malaysia was established and other

related engineering and building codes were updated and re-enforced (Fakhru'l-Razi, 2001) (see section 4.5, p.103).

#### **4.9 Conclusion**

There are two types of disasters known as natural and 'man-made' disasters. In the last decade, the global constituency has experienced every type of disasters. Asia and the Pacific were not so fortunate in escaping the occurrence of disasters and are considered as the highest in the world. As a learning outcome from experiencing natural, man-made and subsequent disasters, there was an evolution of disaster response and management policies in Malaysia indicated by the establishment of the national policy of MNSC Directive 20 that commenced in 1997. However, the effective and successful implementation is yet to be fabricated. Actors were only comfortable with their normal daily routine but not to the MNSC Directive 20. As argued by Davis (2007) significant experience of recovery management and existence of well established disaster management mechanism contributes to a better disaster management structure. The system must also be supported by comprehensive operational procedures, preliminary planning and a well-practiced administrative system. The question inevitably arises as to how acceptable it is to generalise findings from this research as officials involved never looked at the actual copy of the national disaster plan (MNSC Directive 20) per se. Malaysia has a strongly centralised Mechanism of Disaster Management with firm control exercised by the Prime Minister's Department. SOPs are guidelines that can be seen in any form of official written instructions. Direction of this MNSC Directive 20 is clear and understandable. Distinctive elements in this policy are uncompromisable due to existence of international concerns to risk reduction and community resilience that will only be meaningful after officials can demonstrate compliance with this policy. The professional experience of the actors and the historical evolution of professionalism within a particular national system facilitate some findings explanation. Generally, the case of Malaysia is not adequate to come out with a concrete conclusion given to the smallest scale of the impact of the disaster as well as a small number of houses that has to be built. Perhaps at certain point Malaysia might be the leading developing and small country in action to cope with disaster prevention and mitigation. However, they are employed here to inform the findings of my investigation into the Malaysian situation. The findings will then shape the instruments that will be used

and will also be referred to in the discussion of the current research. It was observed that attitude by all actors was a prerequisite for effective partnership in the research and development process. Actors' attitudes towards regulatory compliance are formed by multiple causation and they are not easily predicted, they are result of different causes and in particular are dependent on all five categories of variables. These variables are discussed in the next chapter. They are:

1. General culture-related;
2. Social structure-related;
3. Law-related;
4. Regulatory tradition-related; and
5. Regulatory work-related.



## CHAPTER 5

### Research Methods

“The aim of the Shelter Standards project is to improve the appropriateness and coordination of response to transitional shelter needs following conflicts and natural disasters”.

(ShelterCentre, 2000: 11)

#### 5.1 Introduction

This chapter is devoted to a discussion of the importance of the whole study that leads to the methodological design in the next chapter (Chapter 6). The research process adopted by this study was guided by the realistic approach according to the current situation of the disaster management environment in Malaysia to find answers to the research questions. This chapter begins with an exploration of the problem statement and ended up with the list of methodological caveats in disaster management research.

#### 5.2 Statement of the Problem

From my experience at disaster sites, I saw many examples of non-compliance such as the bedroom size not according to specification; partition walls built of combustible instead of non-combustible materials; no parking and open spaces as required; improper insulation and painting; and no front porch as a safety zone between the main entrance of the houses and the access road. The failure of the Malaysian Government to exercise the proper conduct of post-disaster provision has slowed the process of restoring the livelihoods (Foong *et al.* 2006).

Internationally, the process of regulatory compliance takes place through strict obedience to the law (Meidenger, 1987; Hutter, 2001). Traditionally in Malaysia, actors will generally comply with Ministerial Directives. They will therefore be likely to implement regulatory compliance, but will they put in the necessary effort and commitment to make it a success? It would be far from ideal if regulatory compliance with the MNSC Directive 20 existed only because the Prime Minister’s Department regulations required them to do so. It

would be catastrophic to the recovery development of disaster victims if they were viewed by actors as an annoyance and burden.

The Prime Minister's Department receives and studies reports concerning the developments in regulatory compliance in other countries of the world. It details these proceedings and makes an adjustment to the Malaysian context (Shaluf *et al.* 2006). Malaysia is still in the phase of restructuring, reorganising the National Disaster Management Mechanism to fit in the HFA by taking actions such as monitoring disaster risks, building safety culture at all private and public levels and strengthening disaster preparedness in order to ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation (see section 4.5.2, p.114).

Subsequently, the MNSC Directive 20 exists as the important core of disaster regulation in Malaysia (Moin, 2006), but the implementation is not according to plan and regulatory compliance and was low because the implementation of regulatory compliance will probably involve making changes to what are considered as barriers to the present department environments and these changes will have to be based, to a large extent, on how actors' perceive and judge the introduction of full regulatory compliance implementation.

As argued by Wolensky *et al.* (1990) the ideal planning design stands unsuccessful if the officials' fail to blend together correct attitudes, roles and responsibilities and translate these into policy administration. One significant reason contributed to existence gap between regulation and performance is that actors involved in disaster response received very little information about the MNSC Directive 20 implementation. Actors also received inadequate training and even some of them do not get any training at all. Consequently, no one really knows what they are meant to do. Wolensky *et al.* (1990) also argued that officials initially require an understanding of the internal structural work of the organisation as a result of adequate information about the direction of the organisation. Adequate information will then influence officials to the correct attitudes in policy implementation.

### **5.3 Objective of the Study**

As stated in the MNSC Directive 20, the National Disaster Management and Relief Committee is responsible for monitoring the progress and development of these efforts. And to ensure that disaster management is effectively and smoothly implemented without

compromising compliance with the national and international legislations (NSC, 1997). The success or failure of regulatory compliance with the MNSC Directive 20 in Malaysia depends much on the readiness of actors to accept responsibility to implement at every level.

The introduction of full regulatory compliance will inevitably widen the range of needs of the disaster victims at the scene of a disaster. Presently, actors in Malaysia are required to attend in service training in order to acquire the knowledge for their roles as disaster workers. Undoubtedly some actors have reservations about accepting regulatory compliance. This reservation might be a key to the main issue in this research.

Thus, the overall research objective is to determine the present attitudes of Malaysia's actors towards the planned introduction of full regulatory compliance and if necessary to initiate strategies to assist their anxieties. By undertaking a study of actors' attitudes towards the intended implementation, at the end of the research a better understanding of actors' attitudes will be gained. Any recommendations will be made particularly on the basis of the study content and will not relate to any of my other professional experience or expertise.

#### **5.4 Originality/Value**

This research presents an overview on attitudes of actors in the National Disaster Management Mechanism to the MNSC Directive 20 particularly in the public service sector. There is no evidence of prior work in this field in Malaysia (Aini, 2006).

#### **5.5 Assumptions**

Respondents were asked to express their feelings about their views with respect to a potential sensitive issue: (obligatory) compliance with international and national standards and regulations. It was recognised that the issue of questionnaire (regarding work ethics) might have a negative impact on the validity of the study. Thus, McMillan *et al.* (1997) suggests that researchers in sociological studies should make assumption that multiple realities in social community were constructed through individual and collective definitions of the situation. McMilan *et al.* (1997) also encourage researchers must not assume that respondent have all the information because the social learning theory is determining opinions according to perception of compliance from peers and the individual (see section

3.8.1, p.86) and social influences (see section 5.10, p.138). They may be reluctant to admit that they do not know or, being anxious to please and guess because behavioural intention and actual behaviour were not always highly correlated (Payan *et al.* 2005). There was an important distinction between actual compliance and an estimate of the probability of future compliance. Researchers must avoid giving the impression that respondents ought to know (McMillan *et al.* 1997). Additionally, any research design also suffers from error that researchers ought to reduce/eliminate (see section 6.6, p.185). Such error variables were (or assume to be) randomly distributed or, at any rate, distributed in such a way as not to affect the results (Oppenheim, 1992).

## **5.6 The Importance of the Study**

In the field of disaster management, geography and sociology have conquered most of the disaster research since the 1950s (Quarantelli, 1988). However, more advanced research in sociological context was formulated by developed nations compared to locals in developing nations (Drabek, 1986). Local people are encouraged to find new ways to solve old problems in their country because local residents have the knowledge of the place they live (Spence, 2009) and each disaster situation is unique that requires distinctive (different) proceedings (Corsellis *et al.* 2005).

Thus, it is important to do research in disaster because disaster situation reveal the real capability of local organisations to implement laws and regulations (Barakbah, 1971). In Malaysia, Disaster Management and Relief Committee at the Prime Minister's Department is monitoring and reviewing the MNSC Directive 20 from time to time. Any input (external research) to the awareness about the progress is important. As argued by Cohen *et al.* (2000) research in building a better foundation for understanding behaviour is a necessary step before trying to improve public policy implementation. Even, the public should also deserve their rights by knowing the reality of enforcers' attitudes (Anderson *et al.* 1991b). An informed public can be a major ally because awareness can lead to action, including pressure on legislators and other policymakers to improve the present situation (Anderson *et al.* 1998).

The findings from this research are also important in order to measure how far till now the Malaysia Vision Development Plan (2001-2010) has been achieved towards the main national ambition to be a developed country by the year 2020. One of the indicators

towards the achievement is the level of work ethics in the public service sector and the accomplishment to provide housing to community as a whole. Alexander (1997) argues that the prospect for improvement is still wide open in the approaches to improve and develop a comprehensive model over existing models in disaster planning. There is a need on both national and international levels to extend laws further in order to resolve aspects in emergency the housing sector (Corsellis *et al.* 2005).

## **5.7 Contributions**

This research provides thorough analysis of the views and perceptions of officials in Malaysia towards the implementation of regulations as set out in the MNSC Directive 20 with respect to emergency housing standards. Actors' views on the implementation of full regulatory compliance will inspire the government and related agencies to design a holistic organisation that perhaps will diminish negative disaster likelihoods as the nations' progress. The outcome of this research reveals the reasons why it is important to ensure that policy makers have to be responsive and have a grasp on current research findings in particular to the subject of policy implementation status.

Malaysia is still in the phase of restructuring and reorganising the disaster system to fit in the HFA and ISDR Programme. Thus, these research outcomes can be used to develop strategies and actions that include awareness raising and capacity building for enhancing enforcement of current legislation. The findings tend to originate as a practical guide to more effective responses especially in enhancing the coordination of responsibility between and within the government bodies in the National Disaster Management Mechanism with an active participation from other disaster communities.

As a result of the establishment of compliance culture, empirical evidence in this research suggests that the provision of adequate and appropriate emergency housing can contribute significantly to the recovery of victims post-disaster and to their long term rehabilitation. The findings will hopefully be useful to the following groups of people:

1. Prime Minister's Department of Malaysia;
2. Public service sectors;
3. Disaster management training centre;
4. Researchers in disaster management and public administration;
5. General public;

6. NGOs;
7. Private sectors.

## **5.8 Limitation**

Life cycle in a disaster model is comprised of four phases that include pre-disaster planning in mitigation; preparedness; response in emergency; and recovery and reconstruction (Haddow, 2003). The importance of the focal response will come from the governments with coordination efforts of local, state and federal agencies (Clay, 2004; Levine *et al.* 2006). For that reason, the research will only focus on emergency housing in Malaysia provided by the government/authorities in the National Disaster Management Mechanism in disaster phases. The scope of the study is limited to attitudes to compliance with the MNSC Directive 20, especially the degree of government agencies acting accordingly (Gelderman *et al.* 2006). The main considerations upon commencing this research were as follows:

1. The range of respondents available for the study. Of necessity, owing to limitations of funding and time, it was restricted to the 5 states instead of 13 states in Malaysia;
2. There are other issues that could have been investigated in the reality of regulatory compliance, for example:
  - a. The managing of physical and training material resources;
  - b. International involvement in the MNSC Directive 20;
  - c. Outside communities' acceptance of actors in disaster relief;
3. Answers given by the actors were restricted for some issues due to data protection and confidentiality.

## **5.9 Regulated Population to Justify Biographical Data**

Those involved with disaster fall into two groups that consists of service receivers and service providers (Hodgkinson *et al.* 1998). In this research, service providers were the subject groups. UNDRO (1982) suggested that these two groups (service receivers and providers) may be further categorised on the dimension of direct or indirect involvement. In the National Disaster Management Mechanism in Malaysia, not all the actors are involve in providing emergency housing. Thus, biographical data (see section 6.4.6, p.164, p.3 and 6.5.1, p.173) will decide actors who are involve directly and indirectly in providing

emergency housing in Malaysia. Hodgkinson *et al.* (1998) describes that actors (service providers, the rescuers and helpers) are often the forgotten survivors of disaster. In the scene of disaster, these regulated population comprising of industries; individual companies and business; employers and employees. Behaviours of organisations in this regulated population set trend for the way actors behave towards the culture of regulatory compliance.

Generally, there are three levels of audience in response to disaster that consist of tertiary level (national) as policy making administrators, secondary level (regional/provincial) as project managers of shelter or housing programme and primary level (local) as local groups (surviving community) (UNDRO, 1982). For the purpose of the study and to suit the local context, every level of the Malaysia Disaster Management Mechanism had been explored from national, state and district level. Staff members in each level had specific roles and responsibilities (Macpherson, 2004). The focus of enforcers at an organisational macro level (policy administration) was upon the safe system of work. Meanwhile, at micro level the focus is more towards people categories (e.g. employer and employee; specialist and generalist; skilled and unskilled; and the experienced and inexperienced) (Hutter, 1997).

At the national level, the government (facilitator) always looks for a solution model to counter emerging problems by workers and employers (Scholz, 1984a). Level of compliance with government programmes is one of the ways to identify emerging problems by workers and employers. Less identified barriers will assure a higher level of compliance. Therefore, compliance may change over time (Meidinger, 1985). The level of compliance depends on how far the employer decides to strengthen enforcement (Hutter, 1988). The enforcement activity is a function of effective control over related regulations. Greater enforcement leads to greater compliance, while greater compliance leads to less enforcement (Grey *et al.* 1993).

An established compliance culture at the workplace is essential and might lower the levels of risk to disaster community (Wayne *et al.* 1989; Deilt *et al.* 1991). However, it depends on location of workplace and in some cases it is situational (local expectations). Significantly, regulatory compliance of any enforcement regime depends on inspectors' behaviour in enforcing regulations (May, 2003). They will act better if they have knowledge (trained) and understand the activities they do (Heide, 1989). Thus, factors

influencing enforcement over compliance in organisations depend on the existence of regulation to control over-related regulations; enforcers to enforce such regulation; and knowledge (trained and skills) of actors regarding regulations related to their roles and responsibilities.

Members of organisations are prepared to face numerous conflicting demands in their work atmosphere such as discrimination, time constraint, work pressure, improper work space and introduction of latest technology, external collaboration and greater uncertainty (Murray *et al.* 1986; Hall *et al.* 1986). In Malaysia, factors influencing an organisation were identified as divergence, career progress obstruction, isolation, work overload and poor work environment (Aizzat *et al.* 2005).

As argued by Ramayah *et al.* (2003), team size and varieties of task had no impact on team effectiveness. However, internal group dynamics significantly influence team effectiveness in Malaysia. Ramayah *et al.* (2003) found that better team effectiveness resulted from stronger positive internal group dynamics. Relationships of team members play the most important role in order to promote high team performance and members' satisfaction (Lurey *et al.* 2001). In addition, team members' satisfaction also could be enhanced if supported by a strong team leadership in Malaysia (Ramayah *et al.* 2003). However, communicating face-to-face and social communications do not have any impact on the teams' effectiveness.

### **5.10 Research Approach**

Banton (1964) describes the sociological approach as 'a cultural perspective'. Culture is an understanding entity created by the people that make it possible for them to perform together (Burgess, 1984). This cultural approach focuses attention upon the issues that conflict with the understanding of the social world, the bureaucracy resolution of these conflicts and the social adaptation. In recent research works, culture has become a fundamental construction of administrative regulation (Hawkins, 1984; McGarity, 1985; Bell, 1985; Meidinger, 1985; Jasanoff, 1986). Unfortunately, this development is still considerably uncertain due to the nature of organisational behaviour that consists of attitudes, perceptions, values and beliefs (Harvey *et al.* 2002). Much of the recent scholarship in this area has focused on how organisational routines; the attitudes; and values of bureaucrats shape governmental actions (Golden, 2000). Actors' attitudes were



found to be a significant instrument for influencing levels of compliance (see section 3.8.1, p.86). Scholars suggested that, in order to measure compliance, researchers should recognise, the factors of commitment from officials to objectives, and attitudes to regulatory and compliance, management quality the ability of an organisation to comply and employers' hospitality (Baldwin *et al.* 2001). There are five sources of regulatory culture with significant influences in regulatory compliance. They are general culture, social structure, law, regulatory tradition, and regulatory work (Meidinger, 1987).

### **5.10.1 General Culture-Related**

It would be impractical for people to act with each other without proper definition of culture. People can only work together if they are willing to share understanding of regulatory culture (Becker, 1982; Barley, 1985). In order to understand regulatory culture, people should first familiarise themselves with the factors influencing the organisation as follows:

1. Local and general culture: They can have shared understandings to local and general culture (Geertz, 1973). Most commonly, local cultures are copied in response to show associations between one social group and another;
2. Partial incoherence/clarity: It is not necessary that all the assumptions and expectations of a given culture framework be either logically consistent with each other (Giddens, 1984);
3. Individual, character and difference: Culture defines the content of typical forms of characters (according to interest). Individual identities within a group can vary but still be jointly understandable (Minz, 1982). Culture also creates social space for individuality and difference;
4. Political interaction: Members of the organisation are also influenced by political interaction. They have to define and realise different visions of appropriate social behaviour (Leff, 1978). The most innovative political interaction is often trying to make a new way of action in social relationships;
5. Density: Culture is extremely detailed and complicated. It covers everything from the nature of a good colleague and how to treat them, to how and where to sit in the presence of another type of colleague (McGarity, 1985);

6. Partial indeterminacy/poorly defined: Cultural understanding is likely to introduce structure and constrain behaviour without determining it (Meidinger, 1987);
7. Problem solving: A particular culture is created in the process of problem solving (Barley, 1985). A given social group may simply fail to develop a set of cultural understandings capable of solving common problems.

### **5.10.2 Social Structure-Related**

Every social system has a structure. It is revealed through relationships within the system and through distributions within the system. Relationships are identified through statuses, roles, the division of labour, through communication channels, the socioeconomic relationships and through groups and organisations. Structure is also revealed through distribution of goods: power, wealth and income, property, prestige and access to education (Johnson, 2000). Social structure is also known as a contributing agent. Harre (2002) argued that changing the social world can be achieved only by changing the rules and active customs people follow. Social structure is defined as the complex framework of societal institutions and the social practices that make up a society and that organises and establishes limits on people's behavior (Udy, 1992). Specifically, status, roles, social groups and institutions are elements of social structure.

A status is a position in the hierarchy of society based on a characteristic that fits a person into a particular category (Strydom, 2002). Two types of status are ascribed and achieved (Abbott, 1981). An ascribed status is based on characteristics that a person is born with race, gender and certain disabilities. On the other hand, there are characteristics that a person creates through their own actions. These characteristics create achieved statuses. Examples of achieved statuses include becoming a spouse, becoming an enforcer and becoming a convicted criminal. Roles are sets of expectations, rights and privileges that accompany statuses (Mokhiber, 1988). For example, the status of a manager is accompanied by the expectations that a manager will manage subordinates in organisation and related things that make up a managers' role.

A social group is a collection of people that come together for a purpose, whether it is to provide support and assistance (Rytina, 2000). Social groups can be primary (intimate, small) or secondary (larger, task-oriented). Meanwhile institutions are patterned ways of doing things (Genn, 1993). Institution is an abstract concept that embodies how things are

traditionally done within these specific groups. For example, the institution of the family includes all families both past and present and serving the functions of reproduction and socialisation of children.

### **5.10.3 Law-Related**

It is all about law, regulation and policies. Regulations establish requirements that can be enforced by law. Laws are based directly on the National Constitution. Regulations define the laws; created by the Secretaries and the President's/Prime Minister's Cabinet; and details the procedures, processes and related work for compliance (Torjman, 2005). Legislative resolutions concerning regulatory form and substance are generally stated in statutes. As authoritative guidelines for agency action, statutes are regularly cited in regulatory interactions. In cases where, for whatever reason, there is a gap in the requirements, the enforcer may use policy to establish appropriate subject criteria. While policy does not have the force of law, in order to carry out any mandate, inspectors verify compliance with policy criteria. A public policy is a deliberate and (usually) careful decision that provides guidance for addressing selected public concerns (Torjman, 2005). Owners and operators are advised of deficiencies and encouraged to comply.

### **5.10.4 Regulatory Tradition-Related**

General culture, social structure and law contribute to the traditions in regulatory communities and become as important factors in regulatory interactions. Policies, standard operating procedures, conventions, or regulatory culture are the terms that play a central role in organising regulatory interactions (Meidinger, 1987). Regulatory strategies that commonly use are direct orders, command and control, self-regulation, crosscutting requirements (i.e. generally applicable requirements compulsory on virtually all relevant policies to further various national social and economic policies), crossover sanctions in departmental legislations (e.g. position transfer and disciplinary actions) and partial preemption (i.e. displacement of a lower jurisdiction's laws) (Ayres *et al.* 1992).

The focus in regulatory tradition is about the changes in regulatory practice (namely performance based regulations, engendering compliance cultures, increasing the possibility of the enforcement threat and increased focus on the liability of the individual) because regulatory theorists seek to motivate regulators' behaviour that goes 'beyond compliance'

(Gunningham *et al.* 1999). Indeed agencies may simply go beyond compliance due to the uncertainty created in general rules about what minimal compliance might actually mean. Regulators prefer to go beyond compliance because they are free from liability. Avoiding liability in regulatory compliance has only an indirect contribution to improved regulatory outcomes (Sitkin *et al.* 1994; Haines, 2002). Avoiding liability is one of other broad regulatory techniques that unable to provide a useful means for resolving regulatory conflict.

#### **5.10.5 Regulatory Work-Related**

The burden of much of the factors on regulatory culture is that critical aspects of regulation are in fact worked out in the daily interactions of members of regulatory communities. In this interaction, structure constraints, political pressure, general culture assumptions, legal requirements and bureaucratic procedures are actually turned into a form of regulatory culture that organises the activity of regulation. It depends on professional training, knowledge and experience of the regulators at the ‘operational’ scene. Without knowing much more about how regulation works at the ‘operational’ or ‘street’ level, scholars are unlikely to be able to offer good diagnoses of its strengths and weaknesses (Meidinger, 1987).

There is an ideological interface between the two bodies of law (public welfare versus free market) (see section 2.5.1, p.31; 2.5.2, p.34; and 3.8, p.83, p.3) at the operational scene. Law is always the expression of a particular ideology (Sutherland, 1983). The interface between bodies of regulation must be an ideological interface. Any decision to regulate a matter or to allow the ‘free market’ to regulate is a political decision (Hawkins, 1984). It requires a balancing act between the ‘market’ ideologies that succeed in commercial systems against ‘public welfare’ concerns that may not be met by the free operation of the market. This balancing is a political process (Shearing, 1993). The clash between market ideology and public welfare leads to the kind of market failure (Baldwin, 1999).

However, until now, government has been reluctant to tackle this problem. Rather than resolving these boundaries by making difficult political decisions, central governments try to deny their responsibility and focusing the conflict on regulatees (Haines *et al.* 2003). The government has diverted the conflict to regulators’ responsibility to rationalise the

crisis that is messy and politically dangerous process that hopefully is expected to be resolve within political sphere (Habermas, 1976; Haines *et al.* 2003). The only cure for the problems created by this ‘regulatory struggle’ is for central governments to take greater responsibility for rationalising the competing political demands they face (Habermas, 1976). However, they have to be exact in terms of funding and powers (see section 3.8, p.83, p.3). Habermas (1976) suggested that government must transparent to announce targeted goals especially in any programmes for regulators and regulatees.

### **5.11 Relevance of the Three-Component Model of Attitudes on Regulatory Compliance**

The implication of the three-component model of attitudes (see section 3.8.1, p.86) implies that actor attitudes towards regulatory compliance would be dependent on some or all available cognitive, affective and conative information about what would be involved in the process of regulatory compliance. It is this information that will shape their thoughts, feelings and intended behaviour, that is, their overall attitudes towards accepting the intention of full regulatory compliance implementation.

The cognitive element of actor attitudes would be influenced by actors’ perceived knowledge of regulations in the MNSC Directive 20. This knowledge could have been developed through actual experience of interacting among themselves and the disaster victims. If the experience had been positive, it could be assumed that they might have developed a positive outlook about their colleagues and disaster victims and they would have a favourable view of the regulatory compliance process. But if their experience had been negative, they might eventually view the concept of regulatory compliance with a negative perception.

Besides personal experience, perceived knowledge of the MNSC Directive 20 could also have been acquired through reading and listening to others. This knowledge would naturally shape actors’ beliefs about and perception of disaster management directions in Malaysia. This in turn would influence their attitude towards regulatory compliance. It is important that actors’ knowledge or beliefs about the MNSC Directive 20 be taken into consideration prior to regulatory compliance implementation, since the actors’ ideological perceptions of this programme do not start from a neutral point. Hence the cognitive

component of attitudes would be a guiding factor for actor reaction towards regulatory compliance implementation.

The affective component of attitudes would in some measure relate to the humanitarian side of actors' characteristics. Even if actors have negative feelings or are non-committal about the regulatory compliance process, repeated exposure to the emotional experiences of disaster victims might change their expectations and might gradually shift their feelings from negative to positive.

As for the conative component of attitudes, this again is strongly shaped by the previous amount of personal involvement an actor has had with disaster victims, or by their knowledge of these disaster victims in the line of duty towards regulatory compliance. Their past behavioural response to these disaster victims or what they had heard or read about them could have moulded their attitudes and this in turn could determine their behavioural predisposition towards these disaster victims being treated in the scene of disaster. This predisposition to act is usually derived or inferred from the affective and cognitive elements of actors' attitudes.

Actors' attitudes towards the implementation of regulatory compliance could be determined by their beliefs, knowledge and feelings towards regulations in the MNSC Directive 20 and the disaster victims. These three elements could, either patently or inadvertently, determine both their actual and potential responses to complete regulatory compliance implementation. Hence, actor attitudes in general could determine what individual actors will see, hear, think and do if the intention of full regulatory compliance is achieved. And for change to occur there is need for proper planning. The standard of regulatory compliance needs to be brought to the attention of as many actors as possible, especially to newly qualified actors from training. In order for actors to gain positive attitudes, federal and local authorities have an important role to play. Workshops and other forms of professional development could be helpful for creating what is called the 'compliance culture' (see section 5.10, p.138) among serving actors. Training actors, however, need to learn more about the regulatory compliance and advancement in their carrier.

## **5.12 Research Aims**

Arising from the aims of this research, a series of hypotheses have been set out for the quantitative research and specific questions for the qualitative research. The aims of the research are as follows:

1. To assess attitudes towards and reasons for compliance and non-compliance with the regulations in the MNSC Directive 20;
2. To identify the level of difficulty in understanding the MNSC Directive 20 by the actors;
3. To highlight the causes of any shortfall in understanding and applying the MNSC Directive 20;
4. To assess the accessibility of regulations and identify ways to ease understanding and application of the MNSC Directive 20;
5. To gauge the level of understanding of the role of disaster workers;
6. To identify the level and standard of communication from Authorities;
7. To assess the degree of understanding that regulatory compliance has an impact on both the actors and disaster victims.

The aims were achieved by trying to answer the following broad questions about the concept of regulatory compliance as currently held in Malaysia:

1. What are Malaysian actors' attitudes towards regulatory compliance implementation?
2. What is the understanding of Malaysian actors about regulatory compliance? and
3. What are the actors' perceived rationales of regulatory compliance implementation?

## **5.13 Core-Hypothesis**

Actors in the National Disaster Management Mechanism and their perceptions are correlated to working environment and sociological culture.

### **5.13.1 Hypothesised Attitude Domains**

Hypothesised domains of attitudes towards regulatory compliance were selected to generate the items content of survey questionnaires are as follows:

1. Philosophy of regulatory compliance;

2. Principles of the emergency management according to Malaysia disaster management context;
3. Effect on the disaster victims under the responsibility of the Malaysia National Security Council when disaster strikes;
4. Effect on social, emotional and cognitive development of victim after disaster as the result of regulatory compliance;
5. Cognitive development of the actors;
6. The behaviour of the actors;
7. Effect on emergency housing development as the result of implementation of regulatory compliance;
8. Effect on actors' current workload as the result of implementing such regulations;
9. Perceived ability of actors to comply with such regulation;
10. Perceived readiness of actors to adopt such regulation.

#### **5.14 Specific Research Questions for the Interviews**

This study will try to answer the following specific research issues:

1. What are the general attitudes of actors towards the intended implementation of regulatory compliance?
2. How do actors' backgrounds influence their general attitudes?
3. What are the actors' understandings of regulatory compliance?
4. How do actors' perceived ability to comply with regulations and compare their willingness to support regulatory compliance implementation?
5. What do the actors and disaster victims get from the implementation of regulatory compliance?
6. How effective is the present MNSC Directive 20?
7. What are some training developments to support regulatory compliance?
8. What are some resources to support regulatory compliance?
9. Is there any effect if the department has actors to look after regulatory compliance, related directly to the scene of emergency housing, have specific regulations been implemented to ensure compliance with the regulation?
10. How do disaster victims influence regulatory compliance?
11. How do disaster victims respond to the regulatory compliance?



12. What are some of the key changes actors feel they need to be undertaken prior to regulatory compliance implementation?
13. How do actors' backgrounds influence these components of attitudes?

### **5.15 Conclusion and Methodological Caveats**

There are four methodological caveats in disaster management research (Yates, 1977). The first is clarification of the terms disaster and management. Most of the explanation had been explored in the previous chapters. Secondly, data base availability concerning the topics selected in doing research work. A continuous effort has been done to gain, improve and expand information by doing case studies, keep updating to local and international development without bias to any small, middle and larger cases. The third caveat concerns conflicting professional statuses due to multiplicity in disaster management functions led by amateur, semi-professional, or professionally trained individuals especially regarding differentiation agencies responsibilities. In this research, disaster management communities were stratified into groups concerning level of participation in Malaysia Disaster Management Mechanism (e.g. district, state and national). Actors selected were based on their responsibility solely according to their respective level/function rather than focus on officials' responsible. Fourthly, the purpose of this research is not in measuring variables to predict institutional disaster management capacity rather to reveal response from the actors in conjunction with the implementation of MNSC Directive 20 in disaster management process in Malaysia. Thus, the researcher was considerably aware of the issue, correlating the capacity in disaster management in particularly the community social; cultural; chronological variables; and its leadership. The next chapter will give details of methodological design and the results from data collection.

## CHAPTER 6

### Research Methodology

“For the emergency or public safety professional are the ones to whom the community will look for leadership and guidance in the event of a disaster. For them, more than anyone else, it is a test of all their training, experience and ability; for them disaster is the ultimate emergency”.

(UN-Habitat Agenda, 1996: 5)

#### 6.1 Research Design

Research is a procedure whereby the researcher attempts to find in systematical order within verifiable facts to the solution of a problem (Kerlinger, 1986; Merriam *et al.* 1998). A research design is a plan, structure and investigation strategy in order to obtain answers to problems identified in earlier stage (Kerlinger, 1986). The design formulates a framework of research that includes strategies of data collections. This framework will then become an administrative guide to provide valid and accurate answers to the research question (McMillan *et al.* 1993). Therefore, research design has two purposes. Research design should be able to control the experimental work and provide answers to research questions (Oppenheim, 1992). There are two types of research design known as qualitative and quantitative research.

Design in quantitative research implies a ‘positivist philosophy’ with certain objectives involving numbers, statistics and experimental control to quantify phenomena (McMillan *et al.* 1993). A quantitative approach assumes that the social environment constitutes an independent reality and is relatively constant across time and setting (Gall *et al.* 1996). Meanwhile, qualitative research is the process of inquest to understand a social or human problem. The researcher is requiring determining conceptual framework by using holistic design, word analysis, citing views from informants in a natural setting. Qualitative methodology is specially designed to clarify the meanings of social situations and focus upon the way different people experience, interpret and structure their lives (Burgess, 1984).

For the purpose of this research it was decided to utilise both qualitative (semi structured interviews/focus groups) and quantitative (structured interview/surveys/self

completion questionnaire) approaches. Often a combination of the two approaches is appropriately used. Quantitative and qualitative approaches can complement each other by supporting discovery and confirmation (Gall *et al.* 1996; Neuman, 2006). The main purpose of the structured interview (quantitative study) was to collect information to develop the focus group interviews (qualitative study). The structured interview (surveys) was used mainly due to the large sample framework in Disaster Management Mechanism of Malaysia. Not all of them in this mechanism involve in providing emergency housing. The purpose of questionnaires (surveys) distribution was also to identify the focus group for the next phase that only involve actors who are only involve in providing emergency housing in Malaysia. Thus, this research employs the surveys research method. This research method examines either large or small group of population to verify the sociological and psychological variables relativity, distribution or interrelations (Kerlinger, 1986). Indeed, Silverman (2006) argues for combining both quantitative and qualitative approaches on the grounds that this yields a fuller picture. Data collection regularly uses questionnaires and semi-structured interviews. These two techniques were chosen because they represent a systematic method for collecting data (Fink, 1995).

## **6.2 The Relationship between Qualitative and Quantitative Method in This Study**

### **6.2.1 Connection between Quantitative (Survey) and Qualitative (Semi-Structured)**

In conducting qualitative research, the type of questions asked will determine the kind of research strategy that must be adopted (Yin, 1994) (see section 6.6, p.185). A case study approach is appropriate for investigating ‘how’ questions. In seeking an answer, the researcher does not try to influence or to control behavioural events. The subject studied is a contemporary and real-life phenomenon. The term ‘case study’ has been defined in many ways. There is no common understanding of what constitutes a case study (Lincoln *et al.* 1985; Merriam, 1998). Case study in an in-depth study involves a particular event, circumstances or situations that might escape from broader surveys (Allison, 1996). Thus, a case study may be based on a combination of quantitative and qualitative evidence (Yin, 1994).

There are advantages and disadvantages of combining both methods. There is no single technique that could claim a control on assumption in combining both methods.

However, recently researchers have witnessed an increasing trend towards combining both methods (Trow, 1957) by combining both field work and survey methods in the same study (Sieber, 1973). Surveys often test hypotheses generated through fieldwork which subsequently provide ‘representative information’ that is then elaborated through qualitative data (Vidich *et al.* 1955). Thus, each method has usefulness in a specific situation or phase of the research process and considered as ‘complementary’.

In contrast to the conventional research design, situationalists focus on research methods and maintain that both approaches have value. The two approaches cannot be combined because different paradigms (i.e. inductive and deductive) (see Appendix 11, p.344) are ‘mutually exclusive’ (Burrell *et al.* 1979; Smith, 1983). The ‘purists’ believe that assumptions about knowledge and social reality lead directly to one or the other methodology (quantitative or qualitative) and that there is no way of combining these two research methods.

A false division of assumption exists between these two types of data (Denzin, 1970). Nevertheless, scholars will separate both research techniques in order to get a significant research outcome (Daft, 1983). However, both research techniques have inherent weaknesses that contain an inherent strength too (Sieber, 1973). The trick is to make the most efficient use of both in attempting to understand social phenomena. Qualitative and quantitative methods can contribute to one another in the design, data collection and analysis phases of a project (Sieber, 1973; Madey, 1982).

### **6.2.2 Strategy in Combining Both Methods in This Study**

Strategies in combining both methods requires understanding in merging methods, to link paradigms to methods and triangulate all study phases into research designs known as ‘Triangulation’<sup>22</sup>. Triangulation is not a method. Triangulation will neutralise any inherent bias from the sources of data, investigators and methods (Jick, 1979). The main task was to combine the two paradigms at all phases in the design into one.

---

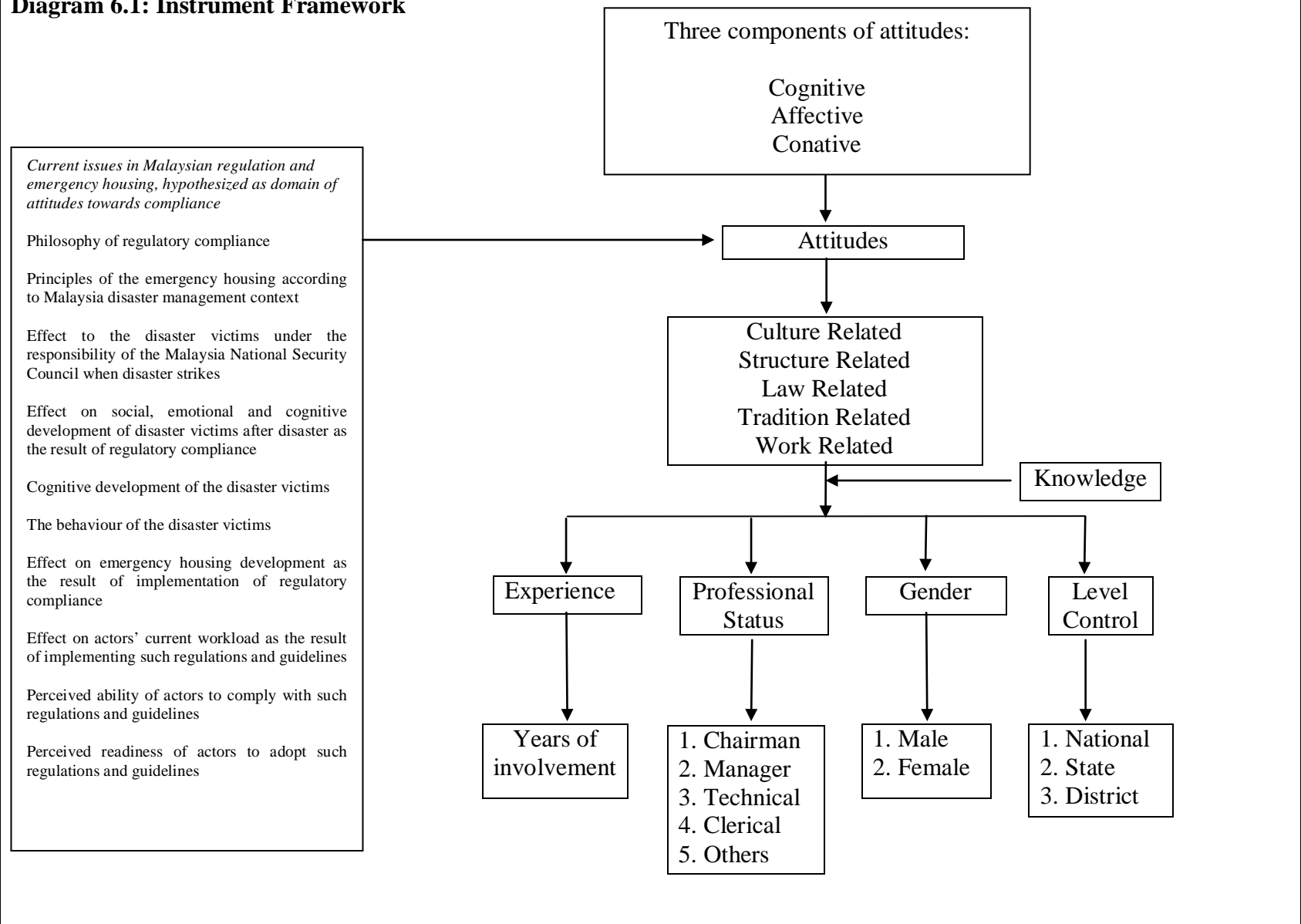
<sup>22</sup> The weakest part in this thesis might be that the actors tried to make it safe and low profile in given their honest answers in surveys to protect their own interest that resulted to the predictable answers. The participants could only report their personal perceptions that were limited to their own understanding and by the emotional that might lead to inaccurate answer or over emphasised issues. In order to overcome these weaknesses, qualitative method was chosen that hopefully can produce evidence (barriers, suggestion and reasons.) to illuminate & articulate the findings established by the questionnaires to support aspects especially those concerning negative aspects or feelings towards the issue.

The model of combined design that is the most suitable for this study is the ‘Two-Phase Design’ approach. This approach will separate the conduct of the qualitative phase with the quantitative phase of the study. This model was selected because both paradigms are clearly separate. At the same time, both paradigm assumptions are clearly defined behind each phase.

Phase 1 is a quantitative study that looked at the statistical relationship between actors’ attitudes and outcomes in their department. Following this macro level analysis, phase 2 looked within a specific disaster site, using qualitative/case study methods to better understand the dynamics of actors’ attitudes. Biographical data from biographical background (see section 6.4.6, p.164, p.3 and 6.5.1, p.173) gathered from survey questionnaires were used to select the suitable respondents as focus group (actors directly involved in emergency housing development-see section 6.5, p.172) for the next phase (Phase 2-qualitative study).

Results are also presented in terms of phases. The quantitative results present descriptive comparisons and relationships. Then the case study results will be presented in terms of themes and subthemes. In the final analysis, this study shows a ‘Two-Design Model’, even though limited to the method, results and discussion sections. The final discussion highlights the quantitative results and the complexities that surfaced from the qualitative results supported by quotes. The parallel and opposite results are discussed in the final conclusion. Both phases are of equal stature and the study has all the advantages of an extensive use of each paradigm of research and the limitation of a clear convergence of the results from both phases of the design. Overall research design was based on the instrument framework in Diagram 6.1.

**Diagram 6.1: Instrument Framework**



Source: Author

As a result of using the three-component model, the actors' attitude scale was categorised into three components: (1) cognitive, (2) affective, and (3) conative, for each of the ten hypothesised domains (current issues). Section A (cognitive) was for the purpose of gaining information on actors' perceived knowledge of the MNSC Directive 20; section B (affective) was to elicit information on how actors feel about the programme; and section C (conative) was to determine under what circumstances actors would be willing to accept the implementation.

Besides categorising the current issues as the hypothesised domains, each domain was further subdivided according to the five groups of variables (culture related, structure related, law related, tradition related and work related) that had been influential in shaping actors' attitudes. Interrelating of the ten hypothesised domains with the three-component model of attitudes, and with the five groups of variables resulted in the production of matrix grid (Table 6.3, p.162) in the quantitative phase, and themes (Table 6.12, p.179) in the qualitative phase which was used as a guide for item construction (questionnaires).

Also included in the questionnaire were items pertaining to various actors' biographical variables (experience, professional status, gender and level of control). Actors' biographical characteristics are mentioned in several international studies (Chapter 2, 3 and 4) on enforcement and compliance as being influential in shaping actors' attitudes. Thus, the aim of the biographical items was to ascertain actors' background characteristics which may be responsible for shaping their exhibited attitudes towards regulatory compliance.

The central premise of this research stipulates that the participation of government officers are the actors in the MNSC Directive 20 programme is essential (Golden, 2000). These government officers are the managers, clerical staff members, technical staff members and officers in the Disaster Management Mechanism in Malaysia, who work at national, state and district levels. Local government is perhaps best positioned to implement mitigation, as they control many of the most effective tools to reduce vulnerability to hazards, such as land use regulation and building code enforcement (Prater, 2000).

### **6.3 Questionnaire and Interviews**

A questionnaire asked the same questions of all the study's respondents. Respondents could reply to each item in a questionnaire either verbally or in writing. The main advantage of using a questionnaire was the low cost of sampling respondents over a wide geographical

area; the time required to collect the data could therefore be minimised. This research used a questionnaire to gauge actors' attitudes towards regulatory compliance implementation in Malaysia. The questionnaire tried to elicit these actors' perceptions of their knowledge, feelings and intended behaviour towards regulatory compliance. Collecting data through questionnaires, and analysing it using statistical methods, is useful for describing:

1. Actors' general attitudes to regulatory compliance and its components;
2. Actors' background characteristics and their influence on these attitudes;
3. The relationship between three major components of attitudes.

Besides providing a general description of actors' attitudes, the findings of the questionnaire were used both to modify items planned for the interview schedule (the second phase of the study) and to generate new items for it too.

Interactions between both interviewer (me) and interviewees (actors) involved oral questions in the interviews. Interviews typically involve individual respondents, but group interviews were also an option. Respondents in an interview reply to interview questions in their own words. Responses from respondents can be recorded through hand written or computer-generated notes and also either by verbally on audiotape or videotape (Gall *et al.* 1996).

For this research, interviews were used to produce evidence to illuminate and articulate the findings established by the questionnaire. They were used to support reasonable explanations as to why actors responded to the questionnaire in the way they did, and to cover aspects of the research that the questionnaire was not able to yield, leading to greater clarity and understanding actors' attitudes. The interviews were able to generate relevant data, both to actors and to decision makers at every level in charge of the regulatory compliance implementation. It was considered that carrying out post-questionnaire interviewing would increase the chances of obtaining information that actors would not normally reveal under other circumstances, especially those concerning negative feelings towards the issue (Gall *et al.* 1989). Interviewing as a method of information gathering is generally a more flexible procedure compared with questionnaire completion concerning attitudes towards the issue under investigation (Clough *et al.* 1991; Rubin *et al.* 2005; Paker, 2005).



An in-depth, semi-structured (i.e. with open-ended questions), face to face form of interview suggested by Oppenheim (2000) was employed. The purpose of the interview was exploratory so as to get an in-depth understanding of the data collected from the sample of completed questionnaires.

## **6.4 Quantitative Method: The Survey**

### **6.4.1 Sampling**

Oppenheim (1992) argued that the research design should decide on target group(s) as well as the specific questions a researcher should ask. Decisions in choosing the right target population (e.g. individuals and groups) were vital for this research. The next stage was to get authorisation and assess the accessible population. In bigger organisations it was very important to select the right department, section or individual. It is important to interview the right person from the organisation rather than most important individual (Ghauri, 2005).

The critical test of a sample design is that it be representative of a larger population. The validity of a sample depends on its accuracy and precision. An accurate sample is also one without bias (Cooper *et al.* 2001).

There is no guarantee that a larger sample will give better approximate population parameters. The accuracy of a sample is, therefore, more significant than its size (Oppenheim, 1992). The sampling technique that was considered suitable for this research was 'Random Systematic' sampling, selected because the data collections involved actors who were only directly responsible for disaster management, particularly in providing emergency housing throughout the country. Although probability sampling was generally the preferred method of sampling, both non-probability and probability sampling procedures were used in this research due to practical considerations (Cooper *et al.* 2001). Sampling methods were categorised according to the approach to ensure that probability of a particular group/cluster was included. Convenience samples were non-probability samples with no restrictions on who was included in the sample but still under the sample framework. Thus the participants in this study were included on the basis of the following criterion:

1. Each participant must have had experience related in the Mechanism of Disaster Management of Malaysia;

2. The participants needed to verbally understand the questionnaires and able to communicate their feelings, thoughts and perceptions because they should be aware and rationale to the issues in disaster management in Malaysia;
3. The participants needed to express a willingness to be honest with the researcher.

The subjects were the actors of a regulated population in Malaysian Disaster Management Mechanism, consisting of the administrative divisions of 13 States and 63 Districts. Nevertheless, only 5 strategic districts were selected in the states of Johor, Selangor, Penang, Kedah and Kelantan. The main criterion of selection was the distance of every state from the central administration of Putrajaya, Malaysia. The locations were selected in order to avoid bias and to encourage accuracy. The actors were stratified according to their involvement in the National Disaster Management Mechanism. The Disaster Management and Relief Committee in Malaysia, in order to justify proper disaster response concurrency to its level, has to form the following:

1. District Disaster Management and Relief Committee for Level I Disaster;
2. State Disaster Management and Relief Committee for Level II Disaster;
3. Central Disaster Management and Relief Committee for Level III Disaster.

#### 6.4.2 Survey Respondents

**Table 6.1: Survey Respondents (Q1 to Q39)**

		<b>Johor</b>	<b>Kelantan</b>	<b>Penang</b>	<b>Kedah</b>	<b>Sabah</b>	<b>Total</b>
1	District	32	32	30	31	32	157
2	State	40	44	39	44	35	202
3	National						54
	Total						413

Source: Author

All of the enforcers from each of the departments in Disaster Management Mechanism in Malaysia were called actors. They were managers, clerical staff members, technical staff members and officers involved in disaster management, especially in providing emergency housing. In total, 413 respondents participated in this surveys as shown in Table 6.1, 66 departments (157 from district level, 202 from state level and 54 from central level) were accessed based on Disaster Management Mechanism of Malaysia

as shown in Table 6.2. Disaster victims were the victims who were affected by disaster. Disaster victims' group is the group consisting of disaster victims under the actors' advocacy.

**Table 6.2: Actors Responded to the Survey**

<b>Department</b>	<b>Actors</b>	<b>n</b>
National	Minister of Information (Datuk Ahmad Shabery Cheek) representative	1
	Minister of Finance representative	3
	Minister of National Unity and Community Development	3
	Chief Secretary of State representative	-
	Commander of the Armed Forces representative	3
	General Director of Police Department representative	3
	General Director of Health representative	3
	General Director of National Security Division representative	2
	General Director of Fire Brigade and Rescue Malaysia representative	2
	General Director of Atomic Energy Licensing Board representative	-
	General Director of Broadcasting representative	2
	General Director of Information representative	2
	General Director of Transportation Department representative	3
	General Director of Public Work Department representative	3
	General Director of Environmental Department representative	3
	General Director of Social Welfare Department representative	3
	General Director of Working and Health Security Department representative	3
	General Director of Meteorology Service Department representative	2
	General Director of Civil Aviation Department representative	-
	General Director of Geology Research Department representative	2
	General Director of Irrigation and Drainage representative	5
	General Director of RELA representative	4
	Secretary: Director of Crisis and Disaster Management Unit, representative	1
	National Security Division (NSD): Prime Minister's Department representative	1
<b>Sub-total</b>		<b>54</b>
State	State Secretary representative	9
	State Police Officer Chief representative	10
	Brigade Commander (ATM) representative	9
	Director of State Fire and Rescue Department representative	12
	Director of State Health Department representative	9
	Director of State Public Works Department representative	13
	Director of State Social Welfare Department representative	9
	Director of State Information Department representative	8
	Director of State Broadcasting Department representative	8
	Director of State Civil Defence Department representative	10
	Director of State Environment Department representative	9
	Director of State Workers Security and Health Department representative	9
	Director of State Meteorology Department representative	5
	Director of Civil Aviation Department representative	5

<b>Actors</b>		<b>n</b>
	Director of State Irrigation and Drainage Department representative	13
	Director of State Geological Survey Department representative	10
	Director of Transport Department representative	11
	Director of Malaysian People Voluntary Alliance (RELA) representative	15
	Manager of State STMB (Malaysia National Telecommunication Agency) representative	11
	Manager of State TNB (Malaysia Electrical Power Agency) representative	12
	Secretary: Director of National Security Division (NSD), state representative	5
<b>Sub-total</b>		<b>202</b>
District	District Officer representative	9
	Chief of District Police Officer representative	10
	District Fire and Rescue Officer representative	12
	District Health Officer representative	9
	District Engineer, Public Works Department representative	13
	Representative from Malaysian Armed Forces (ATM) representative	11
	District Council Secretary representative	9
	District Social Welfare Officer representative	9
	Officer of District Civil Defence Corporation representative	10
	District Information Officer representative	11
	District Engineer, Irrigation and Drainage Department representative	15
	District RELA Officer representative	13
	District TNB Officer representative	11
	District STMB Officer representative	11
	Secretary: Assistant Director, National Security Division (NSD), District representative	9
<b>Sub-total</b>		<b>157</b>
<b>TOTAL</b>		<b>413</b>

Source: Author

### 6.4.3 Instrument for the Questionnaires

An actors' attitude scale (attitudinal scale) was specially developed for this study from 'Strongly Disagreed' (numbered as 1) to 'Strongly Agreed' (numbered as 5) as describe in section 6.4.5, p.160 and shown in Appendix 12, p.346. Three important considerations were taken into consideration during the survey questionnaire construction:

1. The questionnaire had to be able to generate information to describe actors' attitudes towards regulatory compliance implementation
2. Its findings had to be able to suggest guidelines in the development of items for the interview schedule
3. Information yielded had to provide guidelines in selecting disaster area as samples for the qualitative part of the study
4. Questionnaire design must also be aware of the standardised questionnaire normally used in international arena in relation to actors' attitude research.

However, the standardised questionnaire was not suitable in this research. There were three reasons for rejecting standardised questionnaires on actors' attitudes to regulatory compliance, developed internationally as follows:

1. The model of attitudes chosen for this study was the three-component model (cognitive, affective and conative). All of the standardised questionnaires found during the literature search were based on a one-component model of attitudes. No standardised questionnaire on attitudes based on the three-component model is available;
2. All of the standardised questionnaires included items on 'regulatory compliance' not recognised by or not under the responsibility of the Prime Minister's Department. Thus these items were not appropriate;
3. Standardised questionnaires developed internationally were also not suitable because: (i) cultural differences and (ii) differences in organisational structure, system and practices;
4. Standardised questionnaire refers to the 'Theory of Reasoned Action' (TRA) (Fishbein *et al.* 1975). According to this theory, behavior is consistent with a consciousness of personal choice (not based on external institutional influences) and carried out, with intent by an individual. Hence, the instruments in the questionnaire were designed on the principle of individual action rather than institutional influences.

In addition, it was not the intention of the study to produce a standardised scale to measure actors' attitudes towards regulatory compliance. Questionnaires provide an appropriate platform to answer enquiries regarding knowledge, beliefs, attitudes and behaviour from targeted people by collecting information (Boynton, 2004). The assumption made in developing the instrument was that respondents answering the questionnaire are able and sufficiently motivated to disclose their true attitudes towards regulatory compliance and not simply give what they thought are the answers desired by the researcher. The questionnaires involved paper and pencil responses and the main intention was to evaluate actors' attitudes towards regulatory compliance. This was clearly stated to all respondents and the researcher encouraged the respondents to question the wording of any of the survey items according to their personal attitudes.

#### **6.4.4 Questionnaire Designs**

The research design was devised with the assumption that at some later stage the plan might have to change. Most surveys went through the same stages or cycles of stages (Oppenheim, 1992). Thus, questionnaire design was based on day to day progress and flexible upon stipulated aims and theories. General aims then lead to a statement of specific aims and these should be turned into operational aims. Operational aims are a specific set of practical issues or hypothesis investigated. These aims then lead to the construction of statements inspired from the variables measured. At the end of the questionnaires design process, the researcher should be able to formulate a set of questions, scales and indicators (Oppenheim, 1992).

The design should specifically focus on precision, logic-tightness and efficient use of resources. A loose credibility in designing survey questionnaires will waste case material and resources that may result to inaccurate answers, too many conclusion loopholes, generate greatly irrelevant information and little generalisation (Oppenheim, 1992).

As a result of using the three-component model, the attitude scale was categorised into three components for each of the ten hypothesised domains: (1) cognitive; (2) affective; and (3) conative.

Section A (cognitive) of the attitudinal scale (describe in section 6.4.5) is for the purpose of gaining information on actors perceived knowledge of regulatory compliance in Malaysia; Section B (affective) is to elicit information on how actors feel about the regulation in emergency housing; and Section C (conative) is to determine under what circumstances actors would be willing to accept maximum regulatory compliance.

Instrument building and questionnaire composition were based on specification of the variables measured (as shown in the questionnaire-Appendix 12, p.346). Rationales of the questionnaires are as shown in Appendix 13, p.350. For each variable, the order of questions within each module is developed using a ‘funnelling’ approach: a concurrent flow of a very broad question progressively narrows down in scope in order to reach some very specific points (Oppenheim, 2001).

#### **6.4.5 Factors Related to Actors Attitudes**

Besides categorising the ten hypothesised domains of the attitudinal scale into the three components of attitudes, each domain was further subdivided according to the five groups

of variables that had been found in previous studies to be influential in shaping actors' attitudes towards regulatory compliance. These five groups of variables were classified as: (1) general culture-related; (2) social structure-related; (3) law-related; (4) regulatory tradition-related; and (5) regulatory work-related.

Interrelating the ten hypothesised domains with the three-component model of attitudes and with the five groups of variables resulted in the production of a 10 by 3 by 5 matrix grid that was used as a guide for attitude scale items construction (as shown in Table 6.3).

**Table 6.3: Matrix Used as Item Content Guide for the Attitude Scale of the Survey Questionnaire**

[Number in the grid (1 to 39) indicates the item number as it appears in the attitudinal scale]

<b>Hypothesised Domains</b>	<b>Cognitive</b>	<b>Affective</b>	<b>Behavioural</b>	<b>Relation</b>
1. Philosophy of regulatory compliance	1		31	Culture
				Structure
				Law
			32	Tradition
		10, 11, 12		Work
2. Principles of the emergency management according to Malaysia disaster management context	2			Culture
				Structure
		13,		Law
				Tradition
		14		Work
3. Effect to the disaster victims under the responsibility of the Malaysia National Security Council when disaster strikes				Culture
		15, 16, 17	34	Structure
				Law
				Tradition
				Work
4. Effect on social, emotional and cognitive development of disaster victims after disaster as the result of regulatory compliance				Culture
				Structure
				Law
				Tradition
		18, 19, 20		Work
5. Cognitive development of the actors				Culture
				Structure
		26, 27, 28		Law
				Tradition
				Work
6. Actors behaviour				Culture
		24		Structure
				Law
		23		Tradition
		25		Work
7. Effect on emergency housing development as the result of implementation of regulatory compliance		21		Culture
				Structure
				Law
				Tradition
				Work
8. Effect on actors' current workload as the result of implementing such regulations				Culture
		22		Structure
				Law
				Tradition
				Work
9. Perceived ability of actors to comply with such regulation			33	Culture
				Structure
				Law



Hypothesised Domain	Cognitive	Affective	Behavioural	Relation
	3, 4, 5, 6	29	36	Tradition
				Work
10. Perceived readiness of actors to adopt such regulation	7, 8, 9		39	Culture
				Structure
			37	Law
		30		Tradition
			35, 38	Work

Source: Author

A total of 40 items was initially produced. As a result of the pilot study (see section 6.6.2, p.186) one item from Section A was deleted because the possibility of bias regarding the actors' race. The numbers of items in the attitudinal scale for the actual study are 39 and the number of items for each of the three sections is as in Table 6.4.

**Table 6.4: Numbers of Items in the Attitudinal Scale According to Section**

Section A (Cognitive)	Section B (Affective)	Section C (Conative)
9	21	9

Source: Author

The majority of items are constructed in Section B because gaining information on actors' feelings towards regulatory compliance is crucial for its successful implementation in all departments and levels. The assumption was that if the affective component of actors' attitudes is positive, they would make an effort to search for and acquire the knowledge needed to apply regulatory compliance. It was also assumed that a positive affective component would also make them more willing to react positively toward regulatory compliance.

The particular method of measuring attitude is known as Likert Scales (Likert, 1932). A Likert/Semantic Differential Instrument was used for measuring actors' attitudes. These scales, according to Taylor *et al.* (1996), have become one of the dominant methods of measuring social and political attitudes. Likert scales are by far the most common type of survey item; the usual response categories are 'Strongly Agree', 'Agree', 'Don't Know', 'Disagree' and 'Strongly Disagree'.

The 'probabilistic summated-rating method' developed by Likert was used to record the responses to the attitudinal scale. Respondents were requested to express the extent of their agreement or disagreement to every item statement on a five-point forced-choice

continuum as shown in Box 6.1. An intermediate category ‘Undecided’ was provided between the two extremes of the continuum.

**Box 6.1: Range of Response to Item Statement**

1: Strongly Disagree (SD)
2: Disagree (D)
3: Undecided (U)
4: Agree (A)
5: Strongly Agree (SA)

Source: Author

**6.4.6 Term Used for Item Construction**

The criterion adopted in choosing the wording of items was that all the responding actors, regardless of their background, should clearly and easily understand the statement content of each individual item. In order to fulfill the aforementioned condition, usage of technical terms, usually associated with emergency housing, was avoided. Furthermore, the survey phase questions were constructed as generally as possible in order to justify the right actors for the interviews phase. Only those who were involved in the National Disaster Management Mechanism were selected based on their biographical background.

Items in the survey questionnaire used for the study were divided into three parts:

1. Biographical data;
2. Attitudinal scale;
3. Open-ended questions.

Different backgrounds reflect the responsibilities of individual staff members (Macpherson, 2004). Biographical data explained the background of the actors and level of involvement in disaster management.

Items in Section A and C were constructed to serve three purposes. The first was to find out the actors’ perceptions of their knowledge and abilities to comply with rules and regulation in the MNSC Directive 20. They also expressed their likely reaction to these disaster victims if included in their group. The second purpose was to ascertain actors’ perceptions of their colleagues’ knowledge and abilities to meet the demands of regulatory compliance. It was also to gather their views on the likely reaction of other actors to regulatory compliance implementation. In order to achieve research objectives (see section

5.3, p.132), the term ‘actors’ were used for every item in Section A, B and C of the attitude scale.

Most of the items in the attitudinal scale were worded only positively for Section A, B and C to avoid confusion. Only six negatively worded items were involved in Section B. An agreed response to positively worded items would represent a positive evaluation for the attitude component concerned. A disagreed response to negatively worded items would also represent a positive evaluation for the attitude component related to it. The opposite is true for both negatively and positively worded items. The arrangement of positively and negatively worded items in the attitudinal scale was not made in any particular order. A summary of the positive and negative worded items as they appear in the survey questionnaire is shown in Table 6.5.

**Table 6.5: Positive and Negative Worded Items in the Survey Questionnaire**

<b>Section</b>	<b>Positively Worded Items, Q</b>	<b>Negatively Worded Items</b>
A	2, 3, 7, 8, 9	-
B	10, 13, 15, 18, 20, 21, 23, 24, 26, 27, 28, 30	12, 21, 22, 23, 25, 29
C	31, 32, 33, 34, 35, 36, 37, 38, 39	-

Source: Author

#### **6.4.7 Background Characteristics of Actors**

Table 6.6 describes the background characteristics of the actors involved in this research.

**Table 6.6: Background Characteristics of Actors**

Gender	Male	291
	Female	122
No. of Years Service	Under 5	81
	6 to 10	106
	11 to 15	61
	16 to 20	81
	More than 20	84
Professional Status	Chairman	9
	Manager	59
	Technical	102
	Clerical	109
	officer	134
Level Control	National	54
	State	202
	District	157
Attended In-service Courses	Yes	169
	No	244
Availability of Trained Actors	Yes	174
	No	239
Actors to Look after Regulatory Compliance	Yes	175
	No	238
Department Related to the Scene of Emergency Housing	Yes	172
	No	241
Department has Specific Regulation Towards Regulatory Compliance	Yes	139
	No	274

Source: Author

**6.4.8 Data Analysis**

Attitudes (to regulatory compliance) are complex and multifaceted (Allport, 1971). Therefore it was recognised that they cannot be captured by a single score, as is done in many attitude studies, or for that matter, by several scores in order to highlight certain issues on attitudes to regulation compliance. The study limits itself to five main scores (1, 2, 3, 4 and 5 as shown in Box 6.1) for each of the three sections of the questionnaire. Before analysing the data, respondents' scores for negative items in the attitudinal scale of

the survey questionnaires were reversed as shown in Box 6.2 in order to maintain uniformity of item scores.

**Box 6.2: The Reverse Scoring for Negative Items of Attitudinal Section**

Choice of 1 was Scored as 5
Choice of 2 was Scored as 4
Choice of 3 Remains
Choice of 4 was Scored as 2
Choice of 5 was Scored as 1

Source: Author

**6.4.8.1 Sub-Scale of the Attitudinal Scales of the Survey Questionnaire**

The process of creating sub-scales using a combination of items in Section A and B of the attitudinal scale was undertaken prior to data analysis. These sub-scales or factors were not created using the factor analysis method for the reason that it was not the intention of this study to produce a standardised instrument to measure actors' attitudes to regulatory compliance. Factor analysis attempts to identify the relationship between all variables included in the analysis set. Factor analysis is used to reduce a large number of variables into fewer numbers of factors and to study the patterns of relationship among many dependent variables by using mathematical computation (Darlington *et al.* 1973) particularly to discover variance that can only be give details representing smaller number of variables as a whole (Gorsuch, 1983).

The purpose of this research is different and not to find latent/hidden variables. Relationships of both independent and dependent variables were clearly defined so that in analysis the relationship between variables is directly measurable by using other techniques like ANOVA and MANOVA. It was constructed by grouping several items in sections A and B so as to produce descriptive information regarding attitudes to regulatory compliance. This was done in order to give a fuller description of actor attitudes towards regulatory compliance implementation. These sub-scales or factors created are as shown in Table 6.7.

**Table 6.7: Sub-Scale of the Attitudinal Scales of the Survey Questionnaire**

Sub-scale		Items Number	Description
K1	Knowledge of regulatory compliance	1, 2, 7, 8, 9	Item statement deals with knowledge of the rationale and objectives of implementing regulatory compliance. It is also concerned with the propagation of information about regulatory compliance at the department level
K2	Ability to comply	3, 4, 5, 6	Item statement deals with the ability of actors to comply with the MNSC Directive 20
F1	Advantages/disadvantages of regulatory compliance to the actors and disaster victims	18, 19, 20	Item statements deal with the advantages/disadvantages of regulatory compliance for the functional development of actors and disaster victims
F2	Appropriateness of the MNSC Directive 20	26, 27, 28	Item statements deal with the suitability of the MNSC Directive 20 for the implementation of regulatory compliance

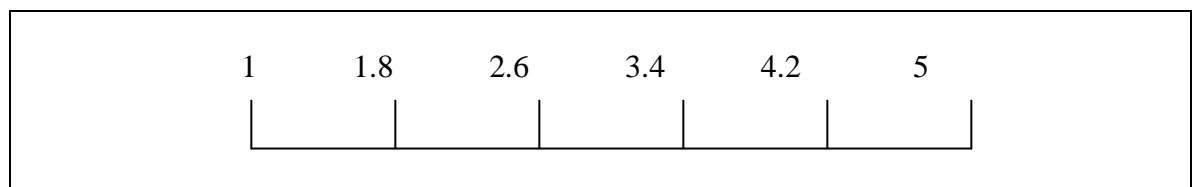
Source: Author

**A. Scoring of Attitudinal Scale, Each Section and Sub-Scales**

A total score for the attitudinal scale, individual sections of A, B and C, and the four sub-scales for each respondent was calculated by summing the scores of every item included in each category. Composite mean scores (CMS) for every category of item was calculated by dividing the summated total score by the total number of items in each category. The range of CMS is from 1 to 5.

**B. Interpretation of CMS**

In order to quantify actors' attitudes towards regulatory compliance using the CMS, differences in CMS range were divided into five equal intervals, where each interval constitutes a score of 0.8 as shown in Box 6.3.

**Box 6.3: Divisions of CMS**

Source: Author

Using Box 6.3 as a reference, the interpretations of CMS made are as follows:

1. A mean score of 2.60 and less was interpreted to mean that actors have a negative attitude towards regulatory compliance (labeled Group 1);
2. A mean score between 2.61 and 3.4 would indicate that actors have a non-committal attitude towards regulatory compliance (labeled Group 2);
3. A mean score of 3.41 and above would indicate that actors have a positive attitude towards regulatory compliance (labeled Group 3).

Labeling of actors according to the three groups of attitude to regulatory compliance was done so that the percentage of actors having positive, negative or neutral attitude could be calculated for the various issues of regulatory compliance discussed in the study findings.

#### **6.4.9 Analysis**

Data analysis was the process of systematically searching and arranging the interview transcripts, field notes and other materials that were accumulated to increase the understanding of the findings and to enable the presentation of what had been discovered by others. Analysis involves working with data, organising it and breaking it into manageable units; synthesising it, searching for patterns and discovering what is important; and what is to be learned and deciding what peers would be told (Bogdan, 1972).

##### **6.4.9.1 Statistical Analysis**

Once the complete questionnaires were received, coding was assigned to the respective questions and categories. The completed questionnaires were assessed to ensure they were correctly completed before entering the data onto data file. Counter checked if necessarily in order, to get a complete questionnaire.

Parametric statistical tests using the SPSS statistical package were used in the questionnaire data analysis. This was justified in terms of the large size of the sample (i.e. 413) since it is generally appropriate to use a normal distribution-based test rather than a non-parametric test when the size of a sample is large enough (i.e. greater than 100). In general as sampling size increases, the shape of the sampling distribution approaches the normal even if the distribution of the variable measured is not itself normal (Norusis, 1994).

Prior to data analysis, efforts were made to identify extreme CMS for the general attitude scale, for sections A, B and C and for the four sub-scales. Five highest and lowest CMS were identified. Since these highest and lowest CMS were typical of the other mean scores they were retained during data analysis. In data analysis, three methods of statistical analysis were employed, as follows:

A. Descriptive (summarise data)

Descriptive statistics were used to attain a general description of actors' attitudes towards regulatory compliance and issues involved in its implementation (i.e. mean scores and standard deviation, frequency and percentage count were employed).

B. Comparison (differences)

Actors' background characteristics and their influence on attitudes towards regulatory compliance were also ascertained for the study, using comparative statistics. Three statistical tests were used: t-test, one-way analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA). Post-hoc Tukey-HSD was utilised to determine groups mean differences for both ANOVA and MANOVA tests if  $\alpha$  was statistically significant at 0.05 levels.

The independent t-test was used to compare one dependent variable with one independent variable consisting of two groups or sets of actors. The one-way analysis of variance (ANOVA) was used to compare one dependent variable with one independent variable consisting of three or more groups or sets of actors. If tests were statistically significant at the 0.05 level ( $p < 0.05$ ), the post-hoc Tukey-HSD test was used to determine group mean differences.

The MANOVA was used to compare two or more dependent variables with one independent variable. Multivariate 'main effect' statistics were calculated using WILKS' Lambda ( $W_\lambda$ ) and the statistical significance level for the 'main effect' chosen was 0.05 ( $p < 0.05$ ). For significant multivariate 'main effect', results of univariate f-tests were used to identify the dependent variable(s) that was responsible for producing the 'main effect'. If the affected independent variable(s) consisted of three or more groups or sets of actors, ANOVA followed by post-hoc Tukey-HSD was used to determine group mean differences.



C. Relationship (pattern to find strength)

Besides description and comparison, inter-relationship between sections, sub-scales and items of the attitudinal scale were also determined. The statistical test used for this purpose is bivariate Pearson correlation.

#### 6.4.9.2 Analysis of Open-Ended Items

Actors' written comments on both closed and open-ended questions were also analysed and incorporated as part of the findings.

A. Item 40

Item 40 describes actors' views on the MNSC Directive 20 implementation. A total of 413 actors responded to item 40 of the survey questionnaire. The number of actors and their professional status that responded are as shown in Table 6.8.

**Table 6.8: Number of Actors and their Professional Status who responded to Item 40**

Professional Status	Number
Chairman	9
Manager	59
Technical	102
Clerical	109
Officer	134

Source: Author

Of 413 actors, 9 were the chairmen, 59 were the managers, 102 were the technical staff members, 109 were the clerical staff members and 134 were the officers. Actors responded to item 40 were coded into three categories:

1. Disagree with the plan to implement regulatory compliance. Actors in this group were those who expressed their opposition using words such as: impractical; disagree with the idea; do not support the idea/plan; maintain the present administration system; disaster victims with difficulties should remain only under specialist and related actors. Included in this category were also actors who did not use the phrases quoted when expressing their views on item 40, but expressed the problem(s) if full regulatory compliance is implemented in their department. These categories of actors were coded as 'disagreed'.

2. Undecided in their opinions towards the implementation of regulatory compliance. Actors included in this group were those who agreed with the idea of regulatory compliance with reservation(s). These actors used ‘but’ and ‘if’ when expressing their opinions. These categories of actors were coded as ‘undecided’.
3. Agreed with the plan to apply full regulatory compliance in the disaster management. The words used by these actors were ‘agree’ with the idea, ‘good’ idea and ‘need to be supported’. These categories of actors were coded as ‘agreed’.

Reasons given by actors for disagreeing, being undecided and agreeing were coded as shown in Appendix 14, p.351, and analysed and discussed in Chapter 7.

#### B. Item 41

Item 41 describes actors’ views about changes need to be made at the department level before regulatory compliance implementation. A total of 413 actors responded to item 41 of the survey questionnaire. The number of actors based on professional status who responded is listed in Table 6.9.

**Table 6.9: Number of Actors and Professional Status who responded to Item 41**

Professional Status	Number
Chairman	9
Manager	59
Technical	102
Clerical	109
Officer	134

Source: Author

Of 413 actors, 9 were the chairmen, 59 were the managers, 102 were the technical staff members, 109 were the clerical staff members and 134 were the officers. Suggestions given by actors for disagreeing, being undecided and agreeing were coded as shown in Appendix 15, p.352, and analysed and discussed in Chapter 7.

### 6.5 Qualitative Method: Interviews

Cherry (2000) argued that a qualitative exploratory research design is very useful when the researcher knows little about a group of people or phenomenon. The actors involved in Malaysia disaster management clearly identified from the list in Malaysia Disaster

Mechanism structured in the MNSC Directive 20. Focus groups were only identified after the phase of quantitative analysis because there is no information at the moment in Malaysia about the specific group or agency directly involve in providing emergency housing (Shuid, 2006).

Biographical data gained in the quantitative phase were used to stratify focus groups for the interviews in the qualitative phase. Only the special body appointed by the government (building contractors, consultants, CIDB and OSHA) were already identified as directly involved in emergency housing development (Foong *et al.* 2006). These special bodies appointed by the government are linked to the government agencies or under the government entities. For this focus group, a qualitative research design was preferred because the researcher had little control over the events and the researcher is unaware about the real life of focus group current state context (McMillan *et al.* 1993).

#### **6.5.1 Biographical Data**

Also included in the survey questionnaire were items pertaining to various Malaysian actors' biographical variables (i.e. the department related directly to the scene of emergency housing, actors who attended an in-service course in disaster management, actors' departments which have trained actors for regulatory compliance, actors' departments which have officers to look after compliance with the regulations and actors' departments which have specific regulation to make sure compliance with the regulation). Actors' biographical characteristics are influential in shaping actors' attitudes toward the implementation of regulatory compliance.

The aim of the biographical items was to ascertain Malaysian actors' background characteristics that may be responsible for shaping their exhibited attitudes towards regulatory compliance. Information on biographical (actors' lives) data gained from the quantitative approach were used as guidelines for selecting respondents for the qualitative approach. The main aim of the interviews was to illuminate and articulate the questionnaire findings. Biographical variables chosen for regulatory compliance were: Actors' Experience; Professional Status; Gender; Level Control; and Administration or Technical; and Dealings/contact with Disaster Victims. Thus, those who were only directly involved with emergency housing were selected for interview sessions.

### **6.5.2 Interview Sampling**

There are two types of approaches to qualitative sampling: the traditional social science approach and the phenomenological approach (Cherry, 2000). In this study, a phenomenological approach was used, employing biographical data to determine strategic decisions about who should be included in the study. Thus, a purposive sampling method was used. It was an appropriate way of choosing information rich cases for in depth study (Patton, 1990).

Information on biographical data gained from the quantitative approach was used as a guideline for selecting respondents for the qualitative approach. Only actors involved in the quantitative part of the study were considered for this phase, since the main aim of the interviews is to illuminate and articulate the questionnaires findings. Only actors involved directly in providing emergency housing were selected to interview sessions. Thus, not all of the respondents based on the Disaster Management Mechanism from the quantitative survey were involved in the qualitative interviews.

The subjects were the actors from a regulated population in Malaysian Disaster Management Mechanism, consisting of the administrative divisions of 13 states and 63 districts. Nevertheless, only 5 strategic districts were selected in the states of Johor, Selangor, Penang, Kedah and Kelantan. The main criterion of selection is the distance of every state from the central administration of Putrajaya, Malaysia. The locations were selected in that manner in order to avoid bias and to encourage accuracy. The actors were stratified based on their involvement in the National Disaster Management Mechanism. In order to justify the proper disaster response concurrent with its level, the Disaster Management and Relief Committee in Malaysia has to form the following:

1. District Disaster Management and Relief Committee for Level I Disaster;
2. State Disaster Management and Relief Committee for Level II Disaster;
3. Central Disaster Management and Relief Committee for Level III Disaster.

Therefore, most of the departments were accessed based on Disaster Management Mechanism of Malaysia. As a result, 71 actors (as shown in Table 6.10 and 6.11) responded as the actors directly involved in providing emergency housing.

**Table 6.10: Interview Respondents**

Professional Status	National (N)		State (S)	District (D)	Special Body Appointed by Government (SB)	Total
	Direct Contact with Disaster Victims	(N)				
Manager	1	-	1	1	1	4
Clerical	6	9	8	10	5	38
Technical	3	6	7	4	4	24
Officer	-		-	5	-	5
Total	25		16	20	10	71

Source: Author

All of the enforcers from each of the departments in Disaster Management Mechanism in Malaysia were called actors. They were managers, clerical staff members, technical staff members and officers involved in disaster management, especially in providing emergency housing. These included the actors from the special body appointed by the government, such as the contractors, compliance officers (i.e. CIDB) and contract workers, responsible for providing emergency housing to the disaster victims. Disaster victims were the victims who were affected by disaster. Disaster victims' group is the group consisting of disaster victims under the actors' advocacy.

**Table 6.11: Actors Interviewed (Qualitative)**

<b>Department</b>	<b>Actors</b>	<b>n</b>
National	Minister of Information (Datuk Ahmad Shabery Cheek) representative	1
	Minister of Finance representative	1
	Minister of National Unity and Community Development	1
	Chief Secretary of State representative	-
	Commander of the Armed Forces representative	1
	General Director of Police Department representative	1
	General Director of Health representative	1
	General Director of National Security Division representative	2
	General Director of Fire Brigade and Rescue Malaysia representative	2
	General Director of Atomic Energy Licensing Board representative	-
	General Director of Broadcasting representative	-
	General Director of Information representative	1
	General Director of Transportation Department representative	1
	General Director of Public Work Department representative	2
	General Director of Environmental Department representative	2
	General Director of Social Welfare Department representative	2
	General Director of Working and Health Security Department representative	2
	General Director of Meteorology Service Department representative	-
	General Director of Civil Aviation Department representative	-
	General Director of Geology Research Department representative	1
	General Director of Irrigation and Drainage representative	1
	General Director of RELA representative	1
	Secretary: Director of Crisis and Disaster Management Unit, representative	1
	National Security Division (NSD): Prime Minister's Department representative	1
<b>Sub-total</b>		<b>25</b>
State	State Secretary representative	1
	State Police Officer Chief representative	1
	Brigade Commander (ATM) representative	-
	Director of State Fire and Rescue Department representative	-
	Director of State Health Department representative	-
	Director of State Public Works Department representative	1
	Director of State Social Welfare Department representative	1
	Director of State Information Department representative	1
	Director of State Broadcasting Department representative	-
	Director of State Civil Defence Department representative	1
	Director of State Environment Department representative	1
	Director of State Workers Security and Health Department representative	2
	Director of State Meteorology Department representative	-
	Director of Civil Aviation Department representative	-
	Director of State Irrigation and Drainage Department representative	1
	Director of State Geological Survey Department representative	2
	Director of Transport Department representative	1
	Director of Malaysian People Voluntary Alliance (RELA) representative	-
	Manager of State STMB (Malaysia National Telecommunication Agency) representative	1
	Manager of State TNB (Malaysia Electrical Power Agency) representative	1
	Secretary: Director of National Security Division (NSD), State representative	1
<b>Sub-total</b>		<b>16</b>

<b>Department</b>	<b>Actors</b>	<b>n</b>
District	District Officer representative	1
	Chief of District Police Officer representative	1
	District Fire and Rescue Officer representative	2
	District Health Officer representative	2
	District Engineer, Public Works Department representative	3
	Representative from Malaysian Armed Forces (ATM) representative	1
	District Council Secretary representative	2
	District Social Welfare Officer representative	1
	Officer of District Civil Defence Corporation representative	-
	District Information Officer representative	1
	District Engineer, Irrigation and Drainage Department representative	2
	District RELA Officer representative	1
	District TNB Officer representative	1
	District STMB Officer representative	1
	Secretary: Assistant Director, National Security Division (NSD), District representative	1
<b>Sub-total</b>		<b>20</b>
Special Body Appointed by the Government	Manager	1
	Clerical	5
	Technical	4
	Officers	-
<b>Sub-total</b>		<b>10</b>
<b>TOTAL</b>		<b>71</b>

Source: Author

### 6.5.3 Instrument for the Interview

A semi-structured interview schedule was developed for this part of the study (as shown in Appendix 16, p.353). The questions for the interview schedule were formulated from the issues on compliance raised from literature reviews, by the quantitative questionnaire approach and from the findings of a pilot study. The following issues were used as references in the construction of the interview:

#### A. Cognitive

1. Actors' concepts of compliance with the regulation;
2. Actors' perceived ability to comply such regulation.

#### B. Affective

1. Actors' perceptions of the suitability of the use of such regulation in any scene of disaster management;

2. Actors' perceptions of the effect of compliance on actors' workload and how compliance would affect disaster management;
3. Actors' perceptions of the suitability of the national disaster management in the scene of emergency at site.

C. Conative

1. Actors' willingness to support regulatory compliance implementation and the conditions for this support;
2. Actors' willingness to acquire skills to maximise compliance with the regulations.

D. Others

1. Actors' perceptions of the barriers to regulatory compliance;
2. Changes suggested by actors at the district, state and national levels towards regulatory compliance;
3. Actors views on how to promote the acceptance of maximum regulatory compliance.

#### **6.5.4 Themes for Qualitative Data Analysis**

At this point, it was very useful to list the main regulatory compliance themes investigated in terms of the three main attitudinal components (or categories) posited in the earlier methodological discussion. They are shown in Table 6.12 in tabular form. Each number given represents the related question number (as shown in Appendix 16, p.353) in the actors' attitudes interview. The rationale behind each question was developed from the issues in the literature (as shown in Appendix 17, p.356).



**Table 6.12: Themes for Qualitative Data Analysis**

Category of Attitude Component	Themes for Qualitative Data Analysis		
Cognitive	1	a	Actors perceived knowledge of the regulatory compliance under the Prime Minister's Department MNSC Directive 20
		b	Prime Minister's Department intention towards regulatory compliance
	2		Actors' understanding of regulatory compliance in Malaysia
	3	a	Perceived knowledge of actors by the term emergency housing
		b	Actors' concepts of disaster victims under the MNSC Directive 20
	4	a	Department level's discussions on regulatory compliance
		b	Actors' perceived knowledge on regulatory compliance towards disaster victims under the MNSC Directive 20
	5		Actors perceived rationale of the Prime Minister's Department plan
Affective	6		Perceived abilities of actors towards regulatory compliance under the MNSC Directive 20
	7		Perceived rights of disaster victims under the MNSC to regulatory compliance
	8	a	Knowledge gained of disaster victims under the MNSC Directive 20
		b	Disaster victims under the MNSC Directive 20, social development
		c	The emotional development of disaster victims under the MNSC Directive 20
	9		Perceived suitability of regulations for actors and disaster victims under the MNSC Directive 20
	10		Perceived effect of regulatory compliance on actors' workload
	11		Perceived effect of regulatory compliance on disaster victims
	12	a	Perceived effect of regulatory compliance on department levels' performance
		b	Suggestions about alternative methods of evaluating department levels' performance if they practice regulatory compliance
Conative	13		Types of regulations favoured by actors for regulatory compliance
	14		Perceived actors support for regulatory compliance implementation
	15		Perceived ability of regulatory compliance on promoting a 'caring feeling' and acceptance of disaster victims under the MNSC by the actors
	16		Perceived willingness of actors to attend in-service training in emergency housing
	17		Actor perceptions of the conditions to accept regulatory compliance
	18		Barriers towards the implementation of regulatory compliance
	19		Changes suggested by actors prior to regulatory compliance implementation in disaster department levels
	20		Strategies to encourage actors to accept regulatory compliance under the MNSC Directive 20

Source: Author

### 6.5.5 Interview

In order for the conversation to flow, the interviewer must possess good interpersonal skills thus establish a rapport with their respondents. The interviewer should be interested,

receptive and non-judgmental in order to minimise bias (Waltz *et al.* 1991). All focus groups conducted for this study were in English. However, translation was available to assist if necessary by the interviewer.

Interviews were used to produce evidence to illuminate and articulate the findings established by the questionnaire. They were used to support reasonable explanations as to why actors responded to the questionnaire in the way they did, something that the questionnaire cannot yield on its own, leading to greater clarity and understanding of their attitudes. The interviews were able to generate data that are relevant to both actors and decision makers in the Prime Minister's Department responsible for the implementation of better regulation and compliance. Interviewing as a method of information gathering is more flexible compared to questionnaire completion, thus resulting in a greater likelihood of gaining more relevant and reliable information about attitudes (Clough *et al.* 1991).

Qualitative research is likely not to use sampling statistically (Delamont, 1995), however it was considered conventional to identify a sample as part of methodology, providing that the reasons for sampling were made explicit and could be demonstrated to be necessary to fulfill the aims of the research. Interviews, to refine meaning, were also fundamental methods. Interviews with actors were predicated as 'conversations' to reflect a less formal approach. The following informal methods had been trailed by the researcher and were used in this research. The basis of these methods was to minimise the disruption of the presence of the researcher in the setting. During the interview the researcher tries to relax and create an atmosphere that interviewees feel comfortable and free to talk openly. The interview format included a schedule and a set of appropriate time to help guide the discussion. The interview began with a short set of non-conversational questions focused on participants' experiences to establish a rapport with the interviewee (Paton, 1990). This allowed the researcher to gain valuable background information about the interviewee.

#### **6.5.5.1 Qualitative Interview**

In recent years, interview had become a contemporary means of story telling where persons reveal life accounts in response to interview inquiries (Fontana *et al.* 2000). For the purpose of the study this traditional way was implemented in order to get accurate accounts and replies. Focus groups were interviewed personally. The focus group interview was designed to gain insights into the dynamic relationship of attitudes, opinions, motivation, concerns

and problems related to current and projected human activity (McDaniel *et al.* 1994). A focus group may be defined as a researcher selected group assembled for the purpose of discussing a specific research topic (Barbour *et al.* 1999). In this qualitative phase actors who were directly involved with emergency housing were interviewed. This approach to qualitative data collection was based on the assumption that people are an important source of information about themselves and the issues that affected their lives and that they could articulate their thoughts and feelings (Winslow *et al.* 2002). The interview was open for changes and was an inter-personal interaction focusing on certain themes (Kvale, 1983).

#### A. Semi Structured Interview

A semi-structured interview technique was chosen because it is an essential data gathering method (Fontana *et al.* 2000). This technique facilitates a researcher's ability to get a rich and in-depth real life experience from respondents. Semi-structured interviews present consistent information that ensures comparability of data. Individual or focus groups in semi-structured interviews were held with actors at different levels because they are likely to be more knowledgeable and informative about the research subject (McMillan *et al.* 1993).

Interviewing involved a combination of in-depth interviews and totally structured quantitative interviews. This method is often used in business-to-business and industrial research. The interview guide was more structured than usual in qualitative research and interviewers were trained in qualitative questioning and prompting techniques but who were not necessarily qualitative researchers (McGivern, 2003). In this research, semi-structured interviews were conducted in a practically open framework to allocate more focus and interactive communication.

Semi-structured interviewing normally begins with general questions (Sampson, 1972). Relevant topics related to the study were initially identified (e.g. availability, clarity and effectiveness) in advance. The majority of questions were designed and phrased prior to the fieldwork visit. However, the interviewees were free to interrupt and be flexible towards the issues being discussed. Prescriptive interviews were used only as a guide, in order to make sure that the issues were within the themes of this research (Pole *et al.* 2002).

### **6.5.6 Data Collection Process**

Follow-up visits were made to all the focus groups, identified from their biographical background in the sample, to make arrangements for appropriate dates to begin interview sessions. An agreement was reached to allow several visits to each of the departments. Permission was given to access any of the actors' workplace/premises but only under the following conditions:

1. Only actors who volunteered or those who were readily persuaded to volunteer would be interviewed. The head of the department or first senior assistants would not send out circulars directing actors to participate;
2. Actors could only be allowed to be interviewed during their free time. Interview sessions with individual actors would stop as soon as the actor concerned needed to continue their work commitments and would be continued later if the actor agreed to it.

Initially not all of the actors approached agreed to be interviewed. Many needed coaxing before interview. Work commitments and time constraints were reasons cited by those who declined. For the interview sessions, actors were interviewed either individually or in groups. Pairing or grouping of actors for interviews was unavoidable because:

1. Several actors refused to be interviewed alone;
2. Actors were often free at the same time.

Working hours in Malaysian normally begin at 9.00 o'clock in the morning and finish after 5.00 o'clock. A one hour break is taken for lunch, and that was the best time for interview sessions. Thus it was not uncommon for several actors to be free at the same time. In some cases the actors would set their own interview session within their working period, or alternatively after working hours.

All actors interviewed were tape recorded with their permission. The interview session lasted approximately one hour on average for one-to-one interviews and one and a half hours for paired interviews, and not more than 2 hours for group interviews. It was assumed for the purpose of the interviews that:

1. Respondents did not withhold any information concerning their attitudes to regulatory compliance because their statements were tape-recorded;

2. For the interview sessions that involved two or more respondents simultaneously, their personal attitudes to regulatory compliance were not influenced by each other's comments on issues raised during the discussions. But it has to be admitted that in some way, directly or indirectly, consciously or unconsciously, respondents could have been influenced.

### **6.5.7 Qualitative Data Analysis**

Scholars have suggested that the data speak for itself, but must be well organised (Fontana *et al.* 2000). As mentioned by Patton (2002), the process of analysing qualitative data is known for taking out rich information and narrowing it down into actual size in order to determine useful patterns and build a framework vision from objectives set up earlier (Patton, 2002). However, there was no single correct method for analysing qualitative data; but clearly the course of action chosen must reflect the purposes of the study (Creswell, 1994; Patton, 2002). Researchers in particular, should be neutral, unbiased and invisible due to the issue of non-reflexivity in qualitative methods. In reality, this circumstance is incredibly hard to achieve as the researcher becomes covered with a mounting sum of field notes, transcripts and audiotapes (Fontana *et al.* 2000).

For the purpose of the study, no computer software was involved in data analysis. Many Computer Assisted Qualitative Data Analysis (CAQDAS) (e.g. Nudist and Atlas/ti) packages are designed to facilitate thematic coding (e.g. transcription analysis; coding and text interpretation; recursive abstraction; content analysis; and discourse analysis) (Wickham *et al.* 2005). Nudist is suitable for data analysis involving sequential structured style, project management and sophisticated searching (particularly for complex projects) while Atlas/ti is suitable for inter-connectedness and creative interface (simple projects where the software needs to be learned in a hurry). However, CAQDAS will distance people from their data, lead to qualitative data being analysed quantitatively and lead to increasing homogeneity in the methods of data analysis (Wickham *et al.* 2005). Therefore, it is not possible to analyse data without reading and being familiar with it first, because continuing analysis relies on the necessity of re-reading data both in complete transcripts/field notes. Qualitative data analysis in this research was done manually due to a small sample size, complexity, and the possibility of losing sight of meaningful data.

The qualitative data analysis incorporated an inductive approach to classify the data into groups (categories) and to identify patterns and relationships among these categories. The qualitative data itself determines the emerging categories and patterns of relationships. With quantitative data, in contrast, categories and patterns of relationships are known, and set intentionally, in advance (McMillan *et al.* 1997). To stress this point, categories should reflect the data itself, because categories of qualitative data are obtained from random choices (Dey, 1995).

At this stage, a thematic/constitute approach was used to analyse the qualitative data analysis rather than grounded theory (codes, concepts, categories and creation of a theory). Thematic Analysis is an approach to dealing with data that involves the creation and application of 'codes' to data. The 'data' being analysed might take any number of forms (in this research the forms include interview transcripts, field notes, policy documents and audiotapes).

The coding system was used on the answers given by the actors, for the purpose of analysing open ended questionnaires from the interviews (as shown in Appendix 18, p.357). 'Coding' refers to the creation of categories in relation to data and grouping together of different instances of datum (singular form of data) under an umbrella term that can enable them to be regarded as 'of the same type'. The first stage of the qualitative data analysis approach was to transcribe the tape recordings of the interview sessions with respondents. The actors' comments on the issues of regulatory compliance in emergency housing in Malaysia were then coded into three categories:

1. Affirmative about the issue of regulatory compliance being discussed;
2. Undecided on the issue;
3. Negative towards the issue.

For every question, the reasons was discussed for actors' having affirmative, undecided or negative views and coded according to their interpretive similarities. The codes used for analysing the interviews were arranged in sequence based on the interview schedule items in the interview's questionnaire. The un-transcribed interview was analysed using the same coding system by just listening to the recorded tapes. This was undertaken after the transcripts of the respondents had been analysed.

Types of actors were interviewed and divided into groups. The first group was the actors who were involved only in the administration stage. The second group consisted of those who were involved in the technical stage. The third was those who were dealing directly with the disaster victims, and the fourth included those who were involved in all stages.

As suggested by Giorgi (1985) and Kerlinger (1986), the analysis in this research was carried out according to the following combination of methods:

1. Review all the data (all transcribed material from focus group) first in a general manner to obtain a sense of the data and emerging themes. A more detailed review was followed with bracketing (placing preconceived ideas within brackets) and intuiting (focusing on actors views). This provided structure to the gathered data and allowed for triangulation between the various research instruments used. The materials consisted of all transcriptions, field notes and document analysis;
2. The data was evaluated holistically and an attempt was made to identify the major categories represented in the material. These major categories were reflected within the different dimensions of the actors work environment, namely, physically, psychological, social, and patterns of interactions between those dimensions;
3. Sub-categories (national, state and district level) within the major categories [(1) affirmative about the issue of regulatory compliance being discussed, (2) undecided on the issue and (3) negative towards the issue] were then identified;
4. A literature control was conducted to identify this study's similarities, differences and contributions to that of previous research;
5. Consensus discussions about the analysis of the data were held with my supervisor.

## **6.6 Research Strategies**

### **6.6.1 The Nature of Good Design**

A researcher is always to bear in mind that some criteria should be cleared before accepting a design strategy during research work. As suggested by Trochim (1982), a good research design in any research work is based on grounded theory, and is situational, feasible, flexible and efficient. An inconsistent design may lead to poor function and operation. A good design where the components work together harmoniously, promotes efficient and

successful functioning. Meanwhile, a flawed design leads to poor operation or failure (Maxwell, 2005).

### **6.6.2 Pilot Study**

Cooper *et al.* (2001) suggested that pre-testing the questionnaires is highly recommended in order to identify potential problems before the actual data collection. A pilot study consists of efforts to determine respondent's interest; ascertain that questions have meaning to the respondent; checking for the possibility of respondent's modification; experimenting with the questions continuity and flow; examining patterns with question sequencing; gathering unnecessary data; and setting up questionnaires in proper length and timing (Cooper *et al.* 2001).

The survey questionnaires were piloted on Malaysian actors, and their accompanying spouses, studying in the United Kingdom, who were familiar with the authority and enforcement in Malaysia, and who were involved in Malaysian enforcement before their arrival in the UK. Six individuals temporarily living in Bristol, Coventry, Manchester, Sheffield and Glasgow, were identified prior to sending the finalised questionnaires. They also distributed the questionnaires to their friends who were also familiar with Malaysian enforcement. They were given a deadline to return the questionnaires and each of the respondents was provided with a stamped addressed envelope. It was considered that all actors receiving the questionnaire in Malaysia would be able to respond appropriately if none of the actors in the pilot study in England encountered problems answering it.

The total number of pilot study questionnaires distributed was 50. The number of questionnaires returned was 30. All respondents who returned the survey questionnaires indicated that they had no problems responding to any of the items. They all answered 'no' to the question, 'Are there any items in the questionnaire you are unclear of'? As a consequence of data received from the pilot study, several modifications and additions were made to the final survey questionnaire. The main adjustments made were to the questionnaires format; the testing group had not been familiar with some of the terminology used in the questionnaires.



### **6.6.3 Data Collection Procedure**

Upon acquiring the relevant documents, I made visits to each of the relevant departments in the Malaysian Disaster Management Mechanism. All Heads of the department or first senior assistants (if the departments' heads were not on the premises) were briefed on the purpose of the study during the first visit to the department. They were also given an explanation of the significance of the study and how the actors' responses to the questionnaire could help shape the future developments of regulatory compliance with the MNSC Directive 20 in Malaysia generally and at every department specifically. They were also encouraged during the briefing to ask questions concerning the study if they felt it needed to be clarified further.

Once they were satisfied with the briefing, their cooperation was enlisted to help distribute the questionnaires to all actors in their department. 'Self completion questionnaires' (questionnaires that respondents complete by themselves) were used in order to reach as many actors as possible. This strategy of distribution was chosen because of the difficulty of meeting every individual actor personally within the department. The services of head of the department or first senior assistants were again enlisted to help collect the completed questionnaires from their colleagues. They requested a period of between seven to ten days to distribute and collect the completed questionnaires. On the agreed date, I visited the department to collect the questionnaires. Efforts were again made to brief heads of the department or first senior assistants who had been away during the first visit. Then personal interviews were conducted in order to get complete questionnaires.

A total of 500 questionnaires were distributed. The number of questionnaires returned and collected personally was 423. Three reasons given for unreturned questionnaires were:

1. Several actors were not in the department or not available for long time during the period the survey was undertaken;
2. A few of the actors who received the questionnaires went for outstation duties and did not return the questionnaire prior to leaving the department;
3. Some actors were reluctant to fill in the questionnaires for personal reasons.

Of the 423 questionnaires returned, 10 were incomplete in the attitudinal scale section and the actors were untraceable; therefore the questionnaires were discarded. A

total of 413 (82.6 per cent) returned questionnaires were used in the data analysis and this was considered as high compared to the level of participation in other general emergency management research in Malaysia, with only 37 per cent in overall response rate (Fakru'l-Razi, 2001). The reason for not returning the questionnaires were: attending in-service courses, recently transferred to other departments, and feeling they were not knowledgeable enough about the actors in their department to answer the questionnaires accurately.

#### **6.6.4 Ethical Issues**

Ethics issues appear from the possibility of conflict among professions in the field (Gillespie, 1995). These conflicts relate to individual rights and making sure that research work is harmless. Therefore, Punch (1998) suggested that the issues of consent, deception, privacy and confidentiality of information must be cleared (Punch, 1998). The ethical issues arising within the context of this research had been given extensive consideration from the outset. As mentioned by Cohen *et al.* (2000), the ethical issues may arise from the nature of actors' ethnic differences in intelligence, procedure adopted, data collection methods, emotional concern, the sensitive nature of data collected and the necessity of not embarrassing participants.

The ethical issues involved in all social research are due to the participation of people (Punch, 1998). Thus, the researcher tried to minimise the risk of exposure to respondents, peers and societies without compromising the production of quality information. With regards to ethical issues, it was important that strict standards were maintained at all times throughout this research. Deep consideration was given in the qualitative phase because qualitative research breaks into peoples' lives. Some qualitative research deals with sensitive, intimate and innermost matters in peoples' lives and ethical issues inevitably accompany the collection of such information (Punch, 1998). There are several ethical considerations with which the questionnaires and interviews are concerned and have been accounted for.

The ethical issues were raised with the actors at the start so that ethical principles could be negotiated with all participants (McMillan *et al.* 1993). Strict confidentiality and the processes for the building of trust between the participants (including the researcher and a participant) were the issues that rose at the start. The ethical principles came from all the participants, and each participant was prepared to negotiate changes and develop these

principles throughout the research. It would be my role to initiate this process. However, I opened opportunities for all participants to take turns in chairing discussions about the ethical principles and issues, as the research progressed. This is important for participant ownership, particularly in light of the tensions surrounding the power for my role. Openness about the issues surrounding the research such as time commitment, relationship to the course structure, content of the research, potential gain and actors' questions is vital.

Consent was required from all actors at the setting to clarify that they volunteered to get involved, with the information sheet explaining the research and the detail of the actor's involvement, including talking to the researcher and being the subject of an audio taped conversation (as shown in Appendix 19, p.364). The letter indicated the time scales involved. Explanations were given to help the actors understand the research. Actors were able to refuse to give consent if they wanted to. Respondents did not have to talk or answer any particular question, to ensure that actors felt comfortable (McMillan *et al.* 1993).

'Ethics Codes' insist on securing the identities of people and locations involved in research work (Christians, 2000). All names of people involved in the research were unspecified (safe). All participants were presented with the transcript of their interview and offered the chance to alter or withdraw parts of the transcript if they felt it misrepresented their comments or for other reasons. Any audio and video tapes were only used for research analysis purposes and kept in a secure/locked place. All of the answered materials (document, tapes) from the actors were destroyed after research work was completed.

#### **6.6.5 Field-Work and Gaining Access**

Three types of permission were required from the relevant authorities. The first was obtained from the Prime Minister's Department. I attempted to seek approval and collaboration from the Prime Minister's Department for conducting this study and access was granted conditionally (this research is only for academics purposes). This approval permitted me to obtain assistance from various departments in Malaysia Disaster Management Mechanism in order to initiate the process of sampling and data gathering. However the foremost consideration in this study was the ethical measures necessary for the use of human subjects. These were developed as part of the research methodology. The approval letter was forwarded to all state and district levels.

Field work was the stage of collecting data from the actors individually or in groups. Field work was separated into two phases (Hutter, 1988). The first and primary methods of investigation were observation and informal discussions with officers. If possible, I tried to join officers for the 9.00 a.m. to 5 p.m. working day and accompanied field officers on their daily visit at the disaster site. They were asked to carry on working as normal when I was with them. However some made special arrangements for my visit, such as devoting part of the day to driving around the area to give me some idea of the types of problems and people they were dealing with.

The second phase of the field-work comprised more formal methodological techniques than the first, namely examination of the records of the department for the purpose of understanding the environment of the departments' administration before semi-structured interviews with the actors. If the head of department or Chief Officer was not available for discussion, then representations were made on their behalf by junior officers to encourage and stick to the number of respondents planned earlier.

The approach was to initiate cooperation from the respondents and motivate them to react positively to the questions through face-to-face interview and mailed communication. The respondents were given advanced notice through a personally addressed postcard or letter inviting their participation in the study. The letter also provided explanation of selection, the method of sampling used, confidentiality, reminders and return of questionnaires, anonymity to hide the identity of respondents, appearance and quality of presentation of questionnaires and a return envelop with glued stamps. The information also included publicity by an informed head of department, small incentives like information on the research topics, future ventures and findings dissemination. Letters to inform about the overall purpose of the study were given before any session of interviews began (as shown in Appendix 20, p.365).

#### **6.6.6 Dealing with Non-Response**

The respondents were reminded and revisited to ensure that they were aware of the deadline. The real issue here was the possibility of bias rather than concern over the number of non-responses. Pilot work is able to minimise the possibility of bias. It follows from any non-response in a pilot study, the assumption that within each cell the non-respondents have the same attributes or experiences as the respondents; therefore the reasons for their

non-response were purely situational, or at any rate were unconnected with the topic of the survey.

#### **6.6.7 Bias in Data Collection**

Bias is a real problem when collecting research information especially when closed-ended questions are involved. When compared to open ended questions, bias is, most probably, more deeply hidden, but nevertheless still there (Kirakowski, 2000). Open-ended questionnaires were preferred in this study. There was always the possibility of obtaining imprecise information or inaccuracy in the data. The actions taken to reduce bias were:

1. Survey questionnaire designed to have the same socio-demographic characteristic as its population (e.g. gender ratio as the grouping, biographical data and ethics);
2. Designing questionnaires in the range of generous knowledge and understanding by the respondent to avoid serious misinterpretations;
3. Making the respondent feel free to take part in the research work in order to create a sense of shared control of the interview;
4. While doing group interviews, the researcher tried to make respondents take part in the interviews without domination by any individual;
5. Tried to avoid random errors (e.g. carelessness, inaccuracies, misunderstandings) and systematic errors (e.g. habitual attempts to hurry less well-educated respondents rather than more time with intelligent-looking respondents);
6. Avoid the scenario in which interviews take the form of investigative procedure rather than in a relaxed environment;
7. The split-ballot technique in pilot work was employed while doing pilot test (divide sample into two groups) in order to avoid the risk of ordinal bias, occurring when people tend to choose a figure near the average;
8. The proper pilot work had been done in order to avoid prestige bias that makes respondents prefer to answer in a way that makes them feel better;
9. Survey questionnaires were design in a way to avoid social desirability bias, when some people claim they know more than they actually do. When designing questionnaires wording was selected more towards low prestige answers (e.g. working together and caring).

### **6.6.8 Rapport Building**

As an introduction, conversation between researcher and respondents was started with easy to answer questions and not necessarily according to the questionnaires. These questions were not aggressive and were then continued to shift to more specifics. In order to make an interactive conversation, the researcher tried to assess the matter of who speaks readily and who needs a bit of encouragement; and who answers questions in detail and who may need to be stimulated for more detail especially while doing group interviews. Tutty *et al.* (1996) encourages researchers to set a direction when interviewing respondents by creating consistent feedback. It is also encouraged that interviews occur individually, when it comes to the subject of an organisation's function (Kelly, 1992; McMillan *et al.* 1997).

### **6.6.9 Sampling Error**

Sampling error might be an outcome of improper research work practice and size of samples. A much larger sample would be needed, in particular, with dependent variables in order to reduce error and to approach significance in statistics. For the purpose of the study, it was decided that sample sizes would not be larger than a few hundred, due to dependent variables as an interval scale, in order to reach statistical significance. Sampling error depends much on sampling size and the precision of the sampling procedure and comparisons of the number of the actors' sub-groups.

### **6.6.10 The Researcher as Instrument**

In order to obtain the data and establish social relationships, the researcher tried to develop close interactions with respondents. McMillan *et al.* (1993) noted that a researcher has to be sensitive as an observer and faithfully records phenomena around them. It is important to understand that researchers are actually an observer, interviewer, participant, observer-participant and participant-observer (Fontana *et al.* 2000). For the purposes of the study the role of interviewer was chosen. I presented myself as a learner and approached the interviews.

## **6.7 Approaches to Verification and Standards of Quality**

Verification is a process that occurs throughout the data collection, analysis and writing-up of a study, while standards are criteria imposed by a researcher and others after the study is

complete (Creswell, 1998). For the purpose of this research, a model of trustworthiness was chosen. The Trustworthiness Model was chosen to make sure there was a tightness of verification and standard of quality in the overall phases of research design. This model is based on the identification of four aspects that consist of truth value, applicability, consistency and neutrality. Truth value considers whether the researcher has established confidence in the findings of subjects or informants (i.e. consent letter and respondents volunteered to get involve) (Lincoln *et al.* 1985). He also describes how applicability refers to the degree to which findings can be applied to other contexts and settings or with other groups (i.e. all of the public service actors in every department in the Disaster Management Mechanism in Malaysia). Sandelowski (1986) interpreted that consistency refers indirectly to the reproducibility (ability to produce the same outcome given a controlled set of variables) of the findings if the inquiry were replicated with the same subjects or in a similar context (i.e. methodology and findings presented directly without repetition) and neutrality, that is from bias in research procedures and results (i.e. non-bias). This model was used to develop strategies that would introduce standards of quality into this research. The strategies implemented were credibility, transferability, dependability and conformability (Krefting, 1991).

## **6.8 Research Credibility**

Credibility refers to the establishment of truth value of the study with the findings (Barribal *et al.* 1996). Research works is considered as not credible if the output gathered from inappropriate views and opinions (Krefting, 1991). Thus, the researcher purposefully selected participants with firsthand experience in order to improve the credibility of this research (Rubin, 1995). The development of the rapport with the participant was made to improve credibility of this research as this provided the researcher with more sensitive in-depth information (Barriball *et al.* 1996). The credibility of this research was set with clear objectives and aims. Being research minded means being able to assess whether a piece of research has been ethical in its design, delivery and reporting. Ethical research creates a mutually respectful relationship between all participants in the research process. This is a relationship in which all involved freely participate, the research retains the highest levels of integrity and the stakeholders or wider community can rely on the findings.

## **6.9 Reliability and Validity of the Qualitative and Quantitative Research**

Reliability and validity are constant concerns in all research. Therefore, in the context of this study the consideration by the terms rigor and trustworthiness had to be cleared. The call for the matter of rigor is actually a basis in qualitative research in order to make sure the research design is tight enough (Krefting, 1991). Potential threats to rigor include trouble in research setting, the chance of misrepresentation of findings and carefully put it right in the nature of the study. The ability to transfer data was also involved, applying to how rigorously the findings can be generalised and applied to other context settings.

There was considerable debate over what constitutes good interpretation in qualitative research (Denzin *et al.* 1994). Krefting (1991) introduced a model of trustworthiness in qualitative research to check and verify data collection methods are valid and reliable. Meanwhile, scholars are still debating the terms of validity and reliability (Hamersley, 1987). According to general understanding and usage, the term validity means to verify whether the instruments implemented in data collection do indeed measure or describe what they have been invented to measure or describe. On the other hand, reliability refers to the extent to which a test or measure yields the same results if re-administered under constant circumstances in all occasions (Bell, 1999).

### **6.9.1 Instrument Reliability**

In this study, this issue was considered from the beginning of designing the instruments used to collect the data relevant to this study. Two stages of reliability testing were conducted. The first was for the questionnaires.

In order to have some degree of confidence in the findings from using survey questionnaire, the Cronbach alpha internal reliability test was used to give a measure of the reliability of the attitudinal scale generally for each Section A, B and C; and for the four sub-scales. The internal reliability coefficient of the survey general attitudinal scale (for all 39 items) was calculated as +0.96. This relatively high reliability coefficient value seems to indicate that the survey attitudinal scale is reasonably reliable. The internal reliability of each component of the attitudinal scale was also calculated. The coefficient value for Section A (cognitive component) was +0.71, for Section B (affective component) was +0.95 and for Section C (behavioural component) was +0.67. A probable explanation for the modest reliability coefficient values for sections A and C was that respondents were



unable to gauge their true knowledge of regulatory compliance and ability to comply with the MNSC Directive 20 when answering items in Section A. They were also probably unable to state their actual behavioural reactions when answering items in Section C. This is due to the fact that the implementation of full regulatory compliance in any department has yet to be rectified.

The internal reliability coefficient for the four sub-scales containing three or more items was calculated and is as shown in Table 6.13.

**Table 6.13: Reliability Coefficient of Q1 to Q39**

Scales	Reliability Coefficient
Q1 to Q39	+0.958
Section A	+0.708
Section B	+0.954
Section C	+0.673
Sub scales:	
• K1	+0.669
• K2	+0.627
• F1	+0.734
• F2	+0.565

Source: Author

The preventive measures to sustain instrument reliability to the interview questionnaires are as follows:

1. Researcher had to establish confidence in the truth of the findings. In qualitative research this is usually obtained from the discovery of human experiences as they are lived and perceived by participants. Researchers then need to focus on testing their findings against various groups from whom the data was drawn, or persons who are familiar with the phenomenon being studied;
2. The second step was for the researcher to establish whether the findings can be generalised to other large populations. There are two perspectives related to applicability in qualitative research. The first suggests that in qualitative research each case is unique and not amendable to qualitative research. Applicability is then not seen as relevant to qualitative research as its purpose is to describe a particular phenomenon or experience not to generalise to others. The second perspective is referred to as fittingness or transferability. Research meets this criterion when the findings fit into contexts outside the study situation that are determined by the

degree of similarity or goodness or fit between the two contexts (Krefting, 1991). As long as the original researcher presents sufficient descriptive data to allow comparison, she or he addressed the problem of applicability;

3. It must also determine whether the findings would be the same if the research was repeated with the same participants or in a similar context. As qualitative research deals with the uniqueness of the human situation, variability is expected in qualitative research and consistency is defined in terms of dependability;
4. The researcher improved the trustworthiness of the findings by extended contact with the subjects and lengthy periods of observation. Instead of looking at the neutrality of the researcher, the neutrality of the data is considered and Krefting (1991) suggested that conformability be the reason of neutrality. This is achieved when the truth-value in applicability is established.

Then, the reliability of the questionnaires and interview questions were assured by using the pilot testing method. This procedure included the administration of the questionnaires and interviews to purposefully selected samples of respondents. However, high reliability is not necessarily a guarantee for good scientific results, but there cannot be any respectably scientific results without reliability. Reliable measurement is referring to consistent results. It is a necessity to ensure that reliable measurement is also high in validity; without high validity there is still sufficient reliability (Krefting, 1991).

### **6.9.2 Instrument Validity**

Among the main issues taken care of during the questionnaire design to ensure its validity was that all the items will be based on the analysis of the literature; and role and responsibilities of the interviewees. Validity determines whether the measuring instrument or interview in fact measures that it is supposed to measure. It also refers to whether or not the experimental design answers the research question and is threatened when uncontrolled factors confusing the experiment process (Weimer *et al.* 1995). The following procedures were followed to support the fact that the instrument and themes constructed according to the international and national academics and questions asked correctly as follows:

1. A comprehensive literature study regarding organisation/institution behaviour, attitudes, regulatory compliance, disaster management and laws and regulation were conducted to ensure that relevant themes were included in the interviews;
2. Each item was discussed by a team of experts/supervisor to ensure correct placement of the relevant categories;
3. Pre-testing had been done to determine whether the questions are clearly worded and easily understood. The pre-test also ensured culture standardisation of respondents.

In this research, two types of non-statistical validity were made before the commencement of the questionnaire's implementation on site. The open-ended responses and interview data were used to validate the finding of the attitudinal scales. The questionnaire will only describe generally the actors' attitudes to regulatory compliance and use to modify and generate items for the interview schedule. The open-ended item data and the interview data were considered adequate to validate the attitude scale findings.

Methods in analysing qualitative data as taking out rich information and narrow its actual size in order to decide beneficial patterns and to build a framework toward the purpose of the studies (Patton, 2002). McMillan *et al.* (1997), notes that there is no single approach in doing qualitative data analysis. Therefore, the researcher tried to find a suitable pattern for data analysis within the general framework of suggested approaches in research texts guided by the research aims and objectives (Miles *et al.* 1994; Cohen, 2000; Patton, 2002).

## CHAPTER 7

### Quantitative Analysis

“Finally, we ought to recognise that there are limits to the improvements that can be made; there never will be a point where there will be perfect disaster concepts or statistics”.

(Quarantelli, 1997: 325)

#### 7.1 Introduction

This chapter will express quantitative analysis (consisting of cognitive analysis in section 7.2, affective in section 7.3 and conative in section 7.4: components of attitude) (see also section 6.4.8, p.166) for methods of analysis with an emphasis in the statistical analysis of responses to the survey questionnaires (from hypothesised domains: see section 5.13.1, p.145) and examines in depth the main emergent findings. In total, 413 respondents participated in this survey. They were from the convenient sample under the Disaster Management Mechanism in Malaysia.

The sequences of analyses are presented according to category of components from cognitive, affective and conative and from the variables measured (i.e. sequence in the questionnaire). The results of data analysis for descriptive statistics on actors' attitudes towards regulatory compliance are presented as tables. The tables were constructed for general attitudinal scores, individual sections A (cognitive), B (affective) and C (conative) and the four sub-scales (K1, K2, F1 and F2) of the attitudinal scales (Strongly Disagreed/Disagreed as Group 1, Undecided as Group 2 and Agreed/Strongly Agreed as Group 3). These tables consist of:

1. Composite mean scores (CMS-e.g. 2.72) (see section 6.4.8, p.166);
2. Standard deviations (e.g.  $\pm 0.23$ );
3. Groups divided from attitudinal scale of 1 to 5 (i.e. Group 1 is a mean score of 2.60 and less as negative attitude, Group 2 is a mean score between 2.61 and 3.4 as neutral attitude and Group 3 is a mean score of 3.41 and above as positive attitude);
4. Frequencies;
5. Percentage scores.

Methods of analysis are as shown in section 6.4.9, p.169. Conclusion was made based on the following analyses and correlated at the end of this chapter (illustrated in details in Appendix 21, p.366).

## **7.2 Actors' Cognitive Component of Attitudes to Regulatory Compliance**

The cognitive element of actor attitudes would be influenced by actors' perceived knowledge of regulations in the MNSC Directive 20. This knowledge could have been developed through actual experience of interacting among themselves and the disaster victims. If the experience had been positive (mean score of CMS 3.41 and above), it could be assumed that they might have developed a positive outlook about their colleagues and disaster victims and they would have a favourable view of the regulatory compliance process. But if their experience had been negative (mean score of CMS 2.60 and less), they might eventually view the concept of regulatory compliance with a negative perception. The key features are listed in the following analyses throughout this chapter. Further analyses that related to hypothesised domain are as shown in Appendix 22, p.370.

### **7.2.1 Influence of Actors' Professional Status on the Dependent Variable of Knowledge (K1) and Perceived Ability (K2)**

Multivariate tests showed that there were no significant differences main effects for the independent variable of Professional Status  $\{W\lambda = 0.96, F(8, 814) = 1.84, p > 0.05\}$  for the dependent variable (K1) and (K2).

Univariate F-tests showed that there were significant difference between knowledge (K1) mean refers to Professional Status  $\{F(4, 408) = 3.63, p < 0.05\}$ . But, there were no significant difference between knowledge (K2) mean refers to Professional Status  $\{F(4, 408) = 1.47, p > 0.05\}$ .

**Table 7.1: CMS, Frequency and Percentage Score for K1**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
K1 attitude	2.72 ± 0.27	107	25.9	217	52.5	89	21.5	413
Chairman	2.87 ± 0.25	3	33.3	3	33.3	3	33.3	9
Manager	2.69 ± 0.30	16	27.5	31	51.9	12	20.7	59
Technical	2.72 ± 0.30	25	24.1	57	56.1	20	19.8	102
Clerical	2.72 ± 0.28	27	24.8	60	54.9	22	20.4	109
Officer	2.73 ± 0.24	36	27.0	67	49.6	31	23.4	134

Source: Author

CMS data (Table 7.1) shows that generally actors had mixed perceptions of their knowledge of regulatory compliance (K1). Percentage data indicates that 25.9 per cent of actors perceive themselves as having low (negative) knowledge of regulatory compliance, 21.5 per cent perceived themselves as having high (positive) knowledge of regulatory compliance, while 52.5 per cent were uncertain. CMS also shows those chairmen were cited as break even (33.3 per cent) referred to the same percentage showed in the Table 7.1. Only chairmen considered themselves as having higher knowledge of regulatory compliance compared to other actors with 33.3 per cent positive in attitudes. Standard deviations show that there were few differences of perception regarding actors' general K1 component within groups of actors. The differences of opinion between actors' knowledge of regulatory compliance were significant statistically. There were significant differences in perceptions between chairmen, technical staff members and clerical staff members about actors' knowledge of regulatory compliance.

**Table 7.2: CMS, Frequency and Percentage Scores for K2**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS	f	%	f	%	f	%	n
K2 attitude	1.83 ± 0.25	340	82.3	60	14.5	13	3.2	413
Chairman	2.50 ± 0.32	6	66.7	0	0.0	3	33.3	9
Manager	1.85 ± 0.34	48	80.9	10	16.9	1	2.1	59
Technical	1.79 ± 0.23	87	85.5	12	11.5	3	2.9	102
Clerical	1.80 ± 0.21	92	84.0	14	13.3	3	2.5	109
Officer	1.83 ± 0.23	107	80.0	23	17.5	4	2.4	134

Source: Author

CMS (Table 7.2) shows that actors had a very low perception of their ability to comply with regulations (K2). Only 3.2 per cent of actors consider themselves as being capable of handling these disaster victims, while 14.5 per cent were unsure. The percentage shows that there were mass differences amongst the attitudes because negative attitudes contributed 82.3 per cent of the whole attitudes. Standard deviations show that there were few differences of perception regarding actors' general K2 component within groups of actors. There were no significant differences in perceptions between actors about actors' ability to apply regulatory compliance.

### 7.2.2 Relationship between Perceived Knowledge of Regulatory Compliance (K1) and Perceived Ability to Apply Regulatory Compliance (K2)

**Table 7.3: Inter-Relationship between K1 and K2**

	K2
Pearson correlation K1	0.53

Source: Author

Correlation is significant at the 0.01 level (2-tailed test). The bivariate correlation statistical test shows that there was a significant positive relationship at 0.01 levels between actors' perceived knowledge of regulatory compliance and their perceived ability to apply regulatory compliance. Both K1 and K2 had a strong relationship because the correlation value (0.53) is close to 1 as shown in Table 7.3.

### 7.3 Actors' Affective Component of Attitudes to Regulatory Compliance

The affective information consists of how an individual feels about the attitude towards regulatory compliance and involves the feelings, moods, emotions or sympathetic nervous system activity that is aroused in a person in relation to the attitude. Attitudes, therefore, are the positive (from mean score of CMS 3.41 and above), or negative (from mean score of CMS 2.60 and less), evaluations a person gives to an attitude towards regulatory compliance about their colleagues and disaster victims. Even if actors have negative feelings or are non-committal (from mean score of CMS 2.61-3.40) about the regulatory compliance process, repeated exposure to the emotional experiences of disaster victims might change their expectations and might gradually shift their feelings from negative to positive. The key features of analyses are listed below. Further analyses are as shown in Appendix 22, p.370.

#### 7.3.1 Influence of Actors' Professional Status on the Dependent Variable F1 and F2

Multivariate test showed that there were no statistically significant relationship between the background characteristics of Professional Status  $\{W\lambda = 0.98, F(8, 814) = 0.81, p > 0.05\}$  for the dependent variable F1  $\{F(4, 408) = 0.25, p > 0.05\}$  and F2  $\{F(4, 408) = 0.42, p > 0.05\}$ .

**Table 7.4: CMS, Frequency and Percentage Scores for F 1**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
F1 attitude	2.17 ± 0.35	222	53.7	153	37.1	38	9.2	413
Chairman	2.52 ± 0.38	4	48.1	2	18.5	3	33.3	9
Manager	2.15 ± 0.35	31	53.1	22	37.9	5	9.0	59
Technical	2.14 ± 0.37	58	56.9	35	34.0	9	9.2	102
Clerical	2.14 ± 0.32	58	53.5	43	39.8	7	6.7	109
Officer	2.20 ± 0.31	70	52.0	51	38.0	13	9.7	134

Source: Author

CMS (Table 7.4) shows that actors perceive themselves as having perception of negative reactions towards the benefit of regulatory compliance to actors and disaster



victims in regulatory compliance. Only 9.2 per cent of actors have a high (positive) perception of their reactions, with 37.1 per cent undecided. There were slightly positive attitudes from the chairmen that contributed 33.3 per cent from overall attitudes. Standard deviations show that there were few differences of perception regarding actors' general F1 within groups of actors. There was no statistically difference between actors' perception of F1 attitude for the independent variable of Professional Status.

**Table 7.5: CMS, Frequency and Percentage Scores for F2**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
	CMS	f	%	f	%	f	%	
F2 attitude	2.36 ± 0.34	172	41.7	189	45.8	51	12.4	413
Chairman	2.52 ± 0.35	5	51.9	1	14.8	3	33.3	9
Manager	2.43 ± 0.36	23	38.4	29	49.2	7	12.4	59
Technical	2.30 ± 0.38	43	42.5	48	46.7	11	10.8	102
Clerical	2.31 ± 0.33	47	43.4	49	45.0	13	11.6	109
Officer	2.39 ± 0.31	54	40.5	62	46.5	18	12.9	134

Source: Author

CMS (Table 7.5) shows that actors perceive themselves as having perception of negative reactions towards the suitability of the regulations and guidelines to actors and disaster victims. Only 12.4 per cent of actors have a high (positive) perception of their reactions, with 45.8 per cent undecided. There were slightly positive attitudes from the chairmen that contributed 33.3 per cent from overall attitudes. Standard deviations show that there were few differences of perception regarding actors' general F2 within groups of actors. There was no statistically significant difference between actors' perception of F2 attitude for the independent variable of Professional Status.

### **7.3.2 Relationship between Actors' Perceived Benefit of Disaster Victims' Development When Included in the Decision Making (F1) and Actors' Perceived Suitability of the Current MNSC Directive 20 (F2)**

**Table 7.6: Inter-Relationship between F1 and F2**

	F2
Pearson correlation F1	0.77

Source: Author

Correlation is significant at the 0.01 level (2-tailed test). The bivariate correlation statistical test shows that there was a significant positive relationship at 0.01 levels between actors' perceived benefit of disaster victims' development when included in the decision making and their perceived suitability of the current MNSC Directive 20. Both F1 and F2 had a strong relationship because the correlation value (0.77) is close to 1 as shown in Table 7.6.

#### **7.4 Actors' Conative Component of Attitudes to Regulatory Compliance**

The conative component of attitudes is strongly shaped by the previous amount of personal involvement an actor has had in implementing the MNSC Directive 20. Actors assumed that an individual (about their colleagues and disaster victims) with positive attitude to an object should engage in behaviour that moves towards the attitude to comply with the MNSC Directive 20 if attitudes influence overt behaviour (from mean score of CMS 3.41 and above). Those with negative attitude (from mean score of CMS 2.60 and less), should move away from it. The key features of analyses are listed below. Further analyses are as shown in Appendix 22, p.370.

##### **7.4.1 Influence of Item 31 and 32: Actors' Support of the MNSC Directive 20 towards the Emergency Housing Regulatory Compliance**

Multivariate tests showed that there was no statistically significant relationship between the background characteristics of Professional Status { $W\lambda = 0.98$ ,  $F(8, 814) = 0.68$ ,  $p > 0.05$ } for the dependent variable Q31 and Q32. Univariate F-tests showed that there was no statistically significant relationship between the background characteristics of Professional Status for the dependent variable Q31, { $F(4, 408) = 0.63$ ,  $p > 0.05$ } and Q32, { $F(4, 408) = 0.49$ ,  $p > 0.05$ }.

**Table 7.7: CMS, Frequency and Percentage Scores for Item 31**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS	f	%	f	%	f	%	n
Q31 attitude	2.82 ± 0.30	100	24.2	266	64.4	47	11.4	413
Chairman	3.11 ± 0.29	2	22.2	4	44.4	3	33.3	9
Manager	2.76 ± 0.36	16	27.1	36	61.0	7	11.9	59
Technical	2.76 ± 0.26	28	27.5	64	62.7	10	9.8	102
Clerical	2.81 ± 0.31	26	23.9	73	66.9	10	9.2	109
Officer	2.89 ± 0.27	28	20.9	89	66.4	17	12.7	134

Source: Author

CMS (Table 7.7) shows that actors perceive themselves as having neutral attitudes towards the matter that actors were supportive of the idea of regulatory compliance. This was obvious since 64.4 per cent of actors were undecided about their willingness to support the idea of regulatory compliance. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admittance that actors were supportive of the idea of regulatory compliance for the independent variable of Professional Status.

**Table 7.8: CMS, Frequency and Percentage Scores for Item 32**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS	f	%	f	%	f	%	n
Q32 attitude	2.60 ± 0.36	167	40.4	167	40.4	79	19.1	413
Chairman	2.78 ± 0.29	5	55.6	1	11.1	3	33.3	9
Manager	2.56 ± 0.33	24	40.7	24	40.7	11	18.6	59
Technical	2.59 ± 0.30	39	38.2	47	46.1	16	15.7	102
Clerical	2.54 ± 0.35	48	44.0	40	36.7	21	19.3	109
Officer	2.63 ± 0.34	51	38.1	55	41.0	28	20.9	134

Source: Author

CMS (Table 7.8) shows that actors perceive themselves as having low (negative) acceptance that actors will accept the current regulations about to change. Only 12.6 per cent of actors have a high (positive) perception of acceptance. Even though undecided with attitudes contributed 40.4 per cent and considered almost even with the negative attitudes (40.4 per cent) it was still not affected by overall attitudes. Chairman was the only group that had high attitude to accept that actors will accept the current regulations about to change with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically significant difference between actors' perception of actors who admitted that actors will accept the current regulations about to change for the independent variable of Professional Status.

#### 7.4.2 Influence of Item no 33: The Willingness of Actors to Develop Skills towards the Regulatory Compliance

There were no statistically (one way ANOVA) significant differences between the background characteristics of Professional Status  $F(4, 408) = 0.42, p > 0.05$  for the dependent variable Q33.

**Table 7.9: CMS, Frequency and Percentage Scores for item 33**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
Q33 attitude	2.39 ± 0.34	199	48.2	135	32.7	79	19.1	413
Chairman	2.89 ± 0.30	4	44.4	2	22.2	3	33.3	9
Manager	2.47 ± 0.28	27	45.8	18	30.5	14	23.7	59
Technical	2.35 ± 0.24	51	50.0	33	32.4	18	17.6	102
Clerical	2.33 ± 0.36	57	52.3	34	31.2	18	16.5	109
Officer	2.41 ± 0.32	60	44.8	48	35.8	26	19.4	134

Source: Author

CMS (Table 7.9) shows that actors perceive themselves as having low (negative) acceptance that actors will volunteer to attend relevant in-service training on regulatory compliance. Only 19.1 per cent of actors have a high (positive) perception of acceptance,

with 32.7 per cent undecided. Chairman was the only group who had high attitude to accept that actors will volunteer to attend relevant in-service training on regulatory compliance with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically significant difference between actors' perception of actors who admitted that actors will volunteer to attend relevant in-service training on regulatory compliance for the independent variable of Professional Status.

### 7.4.3 Conditions for Accepting Regulatory Compliance

**Table 7.10: CMS, Frequency and Percentage Scores for the 6 Conditions for Accepting Regulatory Compliance by Actors**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
General conditions attitudes	2.75 ± 0.39	140	33.9	140	33.9	133	32.2	413
Q34, If directed only	3.12 ± 0.32	105	25.4	105	25.4	203	49.2	413
Q35, Disaster victims without disruptive behaviour	2.93 ± 0.37	107	25.9	145	35.1	161	38.9	413
Q36, If specialist support is available	3.25 ± 0.37	81	19.6	84	20.3	248	60.0	413
Q37, Voluntarily accept without changes	2.69 ± 0.33	88	21.3	288	69.7	37	8.9	413
Q38, If given incentives	2.38 ± 0.33	196	47.5	135	32.7	82	19.9	413
Q39, accept even affects annual appraisal	2.15 ± 0.31	262	63.4	83	20.1	68	16.5	413

Source: Author

CMS (Table 7.10) shows that actors perceive themselves as being undecided in cited conditions towards the implementation of regulatory compliance. Even though negative perception of attitudes contributed only 33.9 per cent and considered almost equal to the undecided (33.9 per cent), it is still did not affect overall attitudes. CMS (Table 7.10) also shows that of the six conditions for accepting regulatory compliance by actors, the highest CMS was for 'the availability of relevant specialist support'. This shows that generally actors would be willing to accept the implementation of regulatory compliance if

the relevant specialist support is available. Percentage scores show that 60.0 per cent of actors would accept regulatory compliance with specialist support. The second highest CMS for the acceptance of the implementation by actors was that if they were directed to do so by the relevant authorities. Percentage scores show that 49.2 per cent of actors were positive that they were willing to implement regulatory compliance only if directed. Actors did not have a problem accepting disaster victims only without disruptive behaviour as part of their condition in accepting the implementation of regulatory compliance. Percentage scores show that 38.9 per cent agreed that they will positively welcome disaster victims only without disruptive behaviour. Very few actors were willing voluntarily to accept regulatory compliance without changes in regulations or guidelines. Only 8.9 per cent voluntarily accept regulatory compliance with present regulations and guidelines. Most of them were undecided (69.7 per cent) to volunteer themselves towards the implementation of regulatory compliance. The least cited conditions were actors who will only accept regulatory compliance if given incentives and actors will accept regulatory compliance even though it will affect annual appraisal. Most of the actors expressed negative attitudes regarding both of these two conditions.

The chairmen most preferred to accept regulatory compliance if the specialist support is available, then followed by: (1) if they were directed only by the authorised parties, (2) disaster victims without disruptive behaviour only to be included under their supervision, (3) willingly accept without changes to regulations and guidelines, (4) incentives will be given and (5) their annual appraisal affected.

### **7.5 General Attitudes of Actors towards Regulatory Compliance Implementation**

Multivariate tests showed that there were statistically significant differences between the background characteristics of Professional Status  $\{W\lambda = 0.95, F(12, 1074) = 1.83, p < 0.05\}$  for the dependent variable of three components of attitudes (cognitive, affective and conative).

**Table 7.11: CMS, Frequency and Percentage Scores for Actors' General Attitudes and Three Components of Attitude to Regulatory Compliance**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
General attitudes	2.45 ± 0.33	199	48.2	140	33.8	74	18.0	413
General cognitive attitude	2.32 ± 0.44	211	51.0	147	35.6	55	13.4	413
General affective attitude	2.42 ± 0.28	218	52.7	129	31.2	66	16.1	413
General conative attitude	2.70 ± 0.29	145	35.1	156	37.9	112	27.0	413

Source: Author

Table 7.11 shows that generally actors involved in the survey have broadly negative (2.45 is in Group 1) attitudes towards the proposed implementation of regulatory compliance in the MNSC Directive 20 into Malaysian Emergency Management Department. The percentage of actors with negative general attitudes was 48.2 per cent. Followed by non-committal attitudes (33.8 per cent) and only 18.0 per cent of actor's exhibit positive attitudes to regulatory compliance. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors.

### **7.5.1 Influence of Actors' Background Characteristics (independent variable) on General Attitudes to Regulatory Compliance**

Statistically (independent t-test or one way ANOVA), there were significant differences in actors' general attitudes to regulatory compliance for the independent variables of: (1) Professional Status { F (4, 408) = 7.15,  $p < 0.05$ }, (2) Attended In-service Courses {F (1, 411) = 7.00,  $p < 0.05$ }, (3) Availability of Trained Actors {F (1, 411) = 6.32,  $p < 0.05$ }, (4) Actors to look after Regulatory Compliance {F (1, 411) = 6.11,  $p < 0.05$ } and (5) Department Related to the Scene of Emergency Housing {F (1, 411) = 6.03,  $p < 0.05$ }.

There were no significant differences on actors' general attitudes towards regulatory compliance for the independent variables of: (1) Gender {F (1, 411) = 1.79,  $p > 0.05$ }, (2) Years Services {F (4, 408) = 2.12,  $p > 0.05$ }, (3) Level Control F (2, 410) = 2.52,  $p > 0.05$

and (4) Department has Specific Regulation towards Regulatory Compliance  $F(1, 411) = 0.86, p > 0.05$ .

**Table 7.12: CMS, Frequency and Percentage Scores for Actors' General Attitudes and Background Characteristic**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
a. Gender								
Male	2.49 ± 0.33	137	47.1	100	34.5	54	18.5	291
Female	2.40 ± 0.33	62	51.0	39	32.1	21	16.9	122
b. Number of Years Working								
Under 5	2.61 ± 0.32	47	58.5	30	36.8	18	21.7	81
6 to 10	2.41 ± 0.34	52	49.5	36	33.5	18	17.0	106
11 to 15	2.47 ± 0.32	29	48.0	21	33.6	11	18.4	61
16 to 20	2.34 ± 0.32	44	53.9	25	31.4	12	14.7	81
More than 20	2.47 ± 0.33	40	47.8	28	33.7	16	18.5	84
c. Professional Status								
Chairman	2.50 ± 0.32	5	49.6	1	15.7	3	34.8	9
Manager	2.46 ± 0.33	129	47.6	20	35.6	10	17.8	59
Technical	2.42 ± 0.33	51	49.5	34	33.6	17	16.8	102
Clerical	2.43 ± 0.34	54	49.3	37	34.0	18	16.8	109
Officer	2.50 ± 0.33	62	46.6	46	34.6	25	18.8	134
d. Level of Control								
National	2.53 ± 0.33	25	45.8	19	35.8	10	18.4	54
State	2.51 ± 0.33	93	45.9	70	36.7	39	19.4	202
District	2.37 ± 0.32	82	52.1	50	31.9	25	15.9	157
e. Attended In-service Courses								
Yes	2.56 ± 0.32	74	43.9	60	35.3	35	20.8	169
No	2.39 ± 0.34	125	51.2	80	32.7	39	16.0	244
f. Availability of Trained Actors								
Yes	2.55 ± 0.33	77	44.3	61	34.8	36	20.9	174
No	2.40 ± 0.33	122	51.1	79	33.0	38	15.8	239



		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		CMS	f	%	f	%	f	
g. Actors to look after Regulatory Compliance								
Yes	2.55 ± 0.33	78	44.3	62	35.2	35	20.5	175
No	2.40 ± 0.33	122	51.2	78	32.8	38	16.1	238
h. Department Related to the Scene of Emergency Housing								
Yes	2.56 ± 0.32	76	44.3	59	34.4	37	21.2	172
No	2.39 ± 0.34	123	51.0	80	33.3	38	15.6	241
i. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.44 ± 0.31	70	50.0	45	32.5	24	17.5	139
No	2.47 ± 0.35	130	47.3	94	34.4	50	18.2	274

Source: Author

Actors' CMS showed (as shown in Table 7.12) that for groups of independent variables of: (1) Professional status, (2) Attended in-service courses, (3) Availability of Trained Actors, (4) Actors to look after Regulatory Compliance and (5) Department Related to the Scene of Emergency Housing had influenced negative general attitudes towards regulatory compliance. However, chairmen in Professional Status group had slightly positive attitudes to regulatory compliance because 34.8 per cent of them had positive attitudes.

## 7.6 Relationship between Actors' Three Components of Attitudes (cognitive, affective and conative) towards Regulatory Compliance

**Table 7.13: Inter-Relationship between Cognitive, Affective and Conative Components of Attitudes**

	Cognitive	Affective
Pearson correlation		
Cognitive		
Affective	0.87	
Conative	-0.35	-0.38

Source: Author

Correlation is significant at the 0.01 level (2-tailed test). The bivariate correlation statistical test shows that there was a significant positive relationship at 0.01 levels between cognitive and affective attitudes. But it was a significant negative relationship at 0.01 levels between both attitudes to conative attitudes. However the three attitudes had a strong relationship because the correlation value (0.87, -0.35 and -0.38) was close to 1 as shown in Table 7.13.

### **7.7 Relationship between Actors' Perceived Ability to Apply (K2) to the Affective Component of Attitudes (Section B) and Willingness to Support the Implementation of Regulatory Compliance (item 31)**

**Table 7.14: Inter-Relationship between K2, Affective and Q31**

	K2	Affective
Pearson correlation		
K2		
Affective	0.87	
Q31	-0.49	-0.50

Source: Author

Correlation is significant at the 0.01 level (2-tailed test). The bivariate correlation statistical test shows that there was a significant positive relationship at 0.01 levels between actors' perceived ability to apply and affective attitudes to regulatory compliance. But it was a significant negative relationship at 0.01 levels between both K2 and affective attitude to willingness to support the implementation of regulatory compliance (Q31). However the three (K2, affective and Q31) had a strong relationship because the correlation value (0.87, -0.49 and -0.50) was close to 1 as shown in Table 7.14.

### **7.8 Open-Ended Items**

Included in the survey questionnaire were two open-ended items. Actors were asked to express their view on Q40 (views on the MNSC Directive 20 towards Regulatory Compliance in Emergency Housing) and Q41 (changes need to be made at the department level before implementing regulatory compliance).

### 7.8.1 Item 40: Views on the MNSC Directive 20 towards Regulatory Compliance in Emergency Housing

**Table 7.15: Frequency for the Three Categories of Responses for Item 40 Based on Professional Statuses**

	Grouping/Frequency/Percentage		
	Disagreed	Undecided	Agreed
Chairman	6	2	1
Manager	43	10	67
Technical	74	16	12
Clerical	78	18	13
Officer	96	22	16
<b>Total</b>	297	68	48
<b>%</b>	66.7	22.2	11.1

Source: Author

Percentage of the actors (as shown in Table 7.15), 66.7 per cent (6) was disagreed with the regulatory compliance plan. 22.2 per cent (2) were undecided and 11.1 per cent (1) were agreed with the plan as shown in Table 7.15. The percentage of managers who disagreed with the plan was 72.9 per cent (43), while 16.9 per cent (10) managers were undecided and 10.2 per cent (6) were agreed with it. The percentage of technical staff members who disagreed with regulatory compliance implementation was 72.5 per cent (74). Of these technical staff members, 15.7 per cent (16) were undecided and only 11.8 per cent (12) were agreed about the implementation. The percentage of clerical staff members who disagreed with the regulatory compliance was 71.6 per cent (78), 16.5 per cent (18) of these actors were undecided and only 11.9 agreed. Meanwhile, 71.6 per cent (96) of officers were disagreed about the implementation, 16.4 per cent undecided and 11.9 per cent (16) were agreed about the implementation.

**Table 7.16: Actors' Reasons for Disagreeing with the Regulatory Compliance**

Reasons	Number of Actors	%
1. Regulatory compliance would disrupt the current norms of the working process	70	19.7
2. Regulatory compliance will increase actors' workload	46	12.9
3. Regulatory compliance will have negative effect on actors and other disaster victims' adaptation	41	11.5
4. Actors do not have the appropriate skills in emergency housing and to manage disaster victims	37	10.4
5. Disaster victims need specialised actors in emergency management to handle them	35	9.8
6. Disaster victims would not be able to cope with adaptation process	33	9.3
7. Disaster victims' group size is too large to support the adaptation process	25	7.0
8. Disaster victims would be discriminated and victimised by other disaster victims	21	5.9
9. Disaster victims would be demoralised if included in disaster victims' group	19	5.3
10. Regulatory compliance is difficult to implement because:		7.3
a. Disruptive behaviours in disaster victims;	15	
b. Appraisal pressures;	5	
c. Negative acceptance of actors;	3	
d. Insufficient resources;	2	
e. Negative acceptance of disaster victims	1	
11. Regulation and guidelines are unsuitable for actors and disaster victims	1	0.3
12. Disaster victims are not interested in being included in disaster victims' group	1	0.3
13. There are no working assistants to help actors involved in regulatory compliance	1	0.3

Source: Author

Some of the actors gave reasons more than one as shown in Table 7.16. The most cited reason among actors who disagreed with the regulatory compliance was the perception that regulatory compliance would disrupt the normal routine of working process (19.7 per cent). This was followed by the perceptions that regulatory compliance would: (1) increase actors' workloads (12.9 per cent) and (2) have a negative effect on actors and other victims' adaptation (11.5 per cent). The fourth most cited reason was the view that actors do not have the required skills in emergency housing and to manage disaster victims (10.4 per cent) and the fifth was the perception that disaster victims need specialised actors to look after them (9.8 per cent). This was followed by the reason of disaster victims who would not be able to cope with adaptation (9.3 per cent), disaster victims' group size is too

large to support the adaptation process in a disaster victims' group (7 per cent), disaster victims would be discriminated and victimised by other disaster victims (5.9 per cent), disaster victims would be demoralised if included in disaster victims' group (5.3 per cent), regulatory compliance is difficult to implement (7.3 per cent), regulation and guidelines are unsuitable for actors and disaster victims (0.3 per cent), disaster victims are not interested in being included in disaster victims' group (0.3 per cent) and there are no working assistants to help actors involved in regulatory compliance (0.3 per cent).

Actors who were undecided used 'if' and 'but' when expressing their views to item 40. The 'if' cited by these actors are as in Table 7.17 and 'but' is as in Table 7.18.

**Table 7.17: Reasons Cited by Actors who Undecided with the Plan to Implement Regulatory Compliance**

<b>The 'if' cited by actors who were undecided with the plan to implement regulatory compliance</b>		
<b>Agree with the plan 'if':</b>	<b>Number</b>	<b>%</b>
1. Departments are given extensive information on regulatory compliance implementation process	5	15.5
2. Actors are given training in emergency management	5	15.5
3. Appropriate resourcing is made available on site	3	9.0
4. Disaster victims included in disaster victims' group:		33.3
a. Do not have a behavioural problem;	4	
b. Have the prerequisite skills (are ready);	3	
c. Are psychologically able;	2	
d. Have moderate difficulties	2	
5. Regulatory compliance involves non-religious matters only	4	12.0
6. All actors in the department are willing to co-operate in the regulatory compliance programme	3	9.0
7. The implementation of regulatory compliance is properly planned	1	3.0

Source: Author

Table 7.17 shows that there were categories of 'if', cited by actors who were undecided about the plan to implement regulatory compliance. The two most common 'ifs' were: (1) if the department is well informed about the process to implement regulatory compliance (15.5 per cent) and (2) if actors are given training in emergency management (15.5 per cent). This was followed by appropriate resourcing is made available on site (9 per cent), disaster victims included in disaster victims' group with certain criteria (33.3 per cent), regulatory compliance involves non-religious matters only (12 per cent), all actors in

the department are willing to co-operate in the regulatory compliance programme (9 per cent) and the implementation of regulatory compliance is properly planned (3 per cent).

**Table 7.18: Reasons Cited by Actors Who Undecided with the Plan to Implement Regulatory Compliance**

<b>The ‘but’ cited by actors who undecided with the plan to implement regulatory compliance</b>		
<b>Agreed with the plan ‘but’:</b>	<b>Number</b>	<b>%</b>
1. Difficult to implement because:		27.3
a. Disaster victims have behavioural problem;	6	
b. Disaster victims’ group is too large	6	
2. Regulatory compliance will increase actors’ workload	6	13.6
3. Regulatory compliance implementation needs to be planned carefully	6	13.6
4. Depends on the types of disaster victims difficulties	4	9.0
5. Regulatory compliance will benefit only some actors and disaster victims	4	9.0
6. Disaster victims:		
a. Have psychological problems;	3	6.8
b. Will develop traumatic problems	2	4.5
7. Department do not have the appropriate resources in emergency housing and to handle disaster victims	2	4.5
8. Actors are not trained in emergency management and to manage disaster victims	2	4.5
9. Regulatory compliance will take time to succeed	3	6.8

Source: Author

Table 7.18 shows that there were categories of ‘but’ cited by actors who were undecided about the plan to implement regulatory compliance. The first was difficulties to implement (27.3 per cent); regulatory compliance will increase actors’ workload (13.6 per cent); regulatory compliance implementation needs to be planned carefully (13.6 per cent); depends on the types of disaster victims difficulties (9 per cent); regulatory compliance will benefit only some actors and disaster victims (9 per cent); disaster victims have psychological problems (6.8 per cent) and will develop traumatic problems (4.5 per cent); department do not have the appropriate resources in emergency housing and to handle disaster victims (4.5 per cent); actors are not trained in emergency management and to manage disaster victims (4.5 per cent); and the last one was regulatory compliance will take time to succeed (6.8 per cent).

**Table 7.19: Reasons Cited by Actors Who Agreed with the Plan to Implement Regulatory Compliance**

Reasons	Number	%
1. Regulatory compliance would help in the realisation of the 'caring society'	16	31.4
2. Regulatory compliance would promote and develop self-esteem in actors and disaster victims	15	29.4
3. Regulatory compliance is in line with the national philosophy of equal opportunities	8	15.7
4. Regulatory compliance would make it easier for disaster victims to accommodate themselves in actors-disaster victims' group	5	9.8
5. A good idea (no reasons provided)	4	7.8
6. Regulatory compliance would promote adaptation atmosphere in disaster victims	3	5.8

Source: Author

Tables 7.19 shows the reasons why actors agreed with the idea to implement regulatory compliance. Most frequently cited reasons by those who agreed were that regulatory compliance would help to create a more 'caring society' (31.4 per cent) and regulatory compliance would help to develop self-esteem of actors and disaster victims (29.4 per cent). This was followed by regulatory compliance, which is in line with the national philosophy of equal opportunities (15.7 per cent), regulatory compliance would make it easier for disaster victims to accommodate themselves in actors-disaster victims' group (9.8 per cent), a good idea (no reasons provided) (7.8 per cent) and the last one was that regulatory compliance would promote adaptation atmosphere in disaster victims (5.8 per cent).

### **7.8.2 Item 41: Changes need to be made at the Department Level before Regulatory Compliance Implementation**

A total of 339 actors responded to item 41 of the questionnaires. 315 actors had made recommendations for change. Some of them gave more than one suggestion. However, 24 actors had advocated that no changes were needed because they were totally against the plan towards the implementation. Frequency of actors who were interpreted as recommending changes is included in the Table 7.20.

**Table 7.20: Frequency of Changes or Actions Recommended by Actors Prior to Regulatory Compliance Implementation**

Changes or actions recommended	Frequency	%
1. Actors should be given in-service training	217	31.0
2. The department should be articulate on the rationale of implementing regulatory compliance	151	21.6
3. All department involved in the regulatory compliance programme should be provided with appropriate physical resources and working equipment	122	17.5
4. The members in disaster victims' group needs to be reduced to enable actors to attend to adaptation needed by the disaster victims appropriately	38	5.4
5. All departments involved in the regulatory compliance programme should be provided with the service of relevant specialist to act as adviser or consultant to actors	24	3.4
6. The post of actors' assistant is created in the department involved in the MNSC Directive 20 to support actors toward regulatory compliance	22	3.1
7. Incentives are given to actors involved in regulatory compliance programme	21	3.0
8. Certain aspects of the current MNSC Directive 20 should be customised to ensure that disaster victims may have wider access to relevant information and other facilities	21	3.0
9. Disaster victims should be ready (mentally and emotionally) before being included in actors and disaster victims' group	20	2.9
10. Actors' workload need to be reduced	11	1.6
11. Attainment of individual actors' appraisal should not be the sole basis of department yearly appraisal or evaluation	11	1.6
12. Credit should be given to the department in its yearly appraisal or evaluation for their good practice in regulatory compliance	8	1.1
13. Everyone in the department involved must be participated in the programme	7	1.0
14. Continuous evaluation and assistance to the programme at district, state and national levels	4	0.6
15. Only actors interested in the programme should be involved in the regulatory compliance programme	4	0.6
16. Acknowledge and promote the benefits of regulatory compliance to all communities and relatives	4	0.6
17. Actors should be given easy access to the programme information and facilities	4	0.6
18. Different types of actors' evaluation	2	0.3
19. Freedom for actors to work without interference from NGO's	2	0.3
20. Provide more opportunities to other related department to volunteer to get involved	2	0.3
21. Increased financial support to department involved in regulatory compliance programme	2	0.3
22. The number of disaster victims included in disaster victims' group should be limited	2	0.3

Source: Author



Actors suggested (as shown in Table 7.20) that actors should be given in-service training (31 per cent); the department should be articulate on the rationale of implementing regulatory compliance (21.6 per cent); and all departments involved in the regulatory compliance programme should be provided with the appropriate physical resources (e.g. access to information, site office and suitable dressings) and working equipment (e.g. tools, first aid kit and furniture) (17.5 per cent).

Besides those mentioned, actors also wanted to see the members in disaster victims' group needs to be reduced to enable actors to attend to adaptation needed by the disaster victims appropriately (5.4 per cent). All departments involved in the regulatory compliance programme should be provided with the service of a relevant specialist to act as adviser or consultant to actors (3.4 per cent), the post of actors' assistant is created in the department involved in the MNSC Directive 20 to support actors towards regulatory compliance (3.1 per cent). Moreover, incentives are given to actors involved in regulatory compliance programme (3 per cent). Certain aspects of the current MNSC Directive 20 should also be customised to ensure that disaster victims may have wider access to information and other facilities (3 per cent). Actors suggested that disaster victims should be ready (mentally and emotionally) before being included in actors and disaster victims' group (2.9 per cent). They also wanted to see that actors' workload is reduced (1.6 per cent), attainment of individual actors' appraisal should not be the sole basis of department yearly appraisal or evaluation (1.6 per cent), credit should be given to the department in its yearly appraisal or evaluation for their good practice in regulatory compliance (1.1 per cent) and everyone in the department involved must be participated in the programme (1 per cent).

Actors also suggested that continuous evaluation and assistance to the programme at district, state and national levels (0.6 per cent), only actors interested in the programme should be involved in the regulatory compliance programme (0.6 per cent), acknowledge and promote the benefits of regulatory compliance to all communities and relatives in regulatory compliance (0.6 per cent), actors should be given easy access to the programme information and facilities (0.6 per cent), different types of actors' evaluation (i.e. not for appraisal only rather to other personal achievement) (0.3 per cent). Actors also wanted to see freedom for actors to work without interference from NGO's (0.3 per cent), provide more opportunities to other related departments in which to volunteer and get involved (0.3 per cent), increased financial support to department involved in regulatory compliance

programme (0.3 per cent) and the number of disaster victims included in disaster victims' group should be limited (0.3 per cent).

## **7.9 Conclusion**

The findings from the questionnaires showed that actors had broadly negative attitudes towards regulatory implementation. These negative general attitudes reflect negative cognitive and affective components of attitudes to regulatory compliance, although the conative component of attitudes is neutral. They were unsure about their reactions towards the implementation of regulatory compliance but negatively thought about their level of knowledge and also their internal feelings (reasons are revealed in qualitative analysis section 8.2.1, p.228; 8.2.2, p.231; 8.2.3, p.231; 8.2.4, p.232 and 8.2.5, p.238: they know very little about the regulatory compliance implementation proposed by the Prime Minister's Department, information restricted to specific actors only and rarely discussed).

However the tests did show that there were strong significant positive relationships between the three components of attitudes. The three components influenced the way actors react to their perception towards the implementation of regulatory compliance. Statistically, the background characteristic that seems to have significant influence on actors' attitudes to regulatory compliance were the Professional Status, Actors Attended In-service Courses, Department that had Trained Actors, Willingness to Attend Trainings, Official Care in Regulatory Compliance and Experience in Emergency Housing. There were no significant differences in actors' general attitudes to regulatory compliance based on their background characteristics of: (1) Gender, (2) Number of Years Working, (3) Level of Control and (4) Department has Specific Regulation towards Regulatory Compliance. Different Gender, Experience, Mechanism and Availability of Specific Regulation had no influence on the implementation of regulatory compliance. Hence, they provided thirteen reasons for opposing regulatory compliance implementation in their department.

Knowledge and abilities instrument is working in parallel (reasons are revealed in qualitative analysis section 8.2.4, p.232; 8.2.5, p.238; and 8.2.6, p.239: lack of knowledge, inexperienced and lack of training). The tests show that there were strong significant positive relationships between both elements. They will show high ability to comply if they had knowledge regarding the MNSC Directive 20. Statistically, background characteristics (e.g. Gender, Professional Statuses and Level of Control) have influenced actors' abilities

to comply but the knowledge of actors not influenced by these background characteristics. Generally, actors perceived themselves as unsure about their level of knowledge in regulatory compliance in the MNSC Directive 20 and had low confidence of their own ability to comply with regulations and guidelines. Only chairmen had high confidence in their own skills to apply regulatory compliance.

Specifically, actors at the national and state level considered themselves as positive but unsure about their knowledge in emergency management. Actors at the national and state level however perceived themselves as negative and undecided about their abilities to implement regulatory compliance (findings in quantitative and qualitative are differ as shown in Table 7.1, p.200 and 7.2, p.201 due to actors' involvement are more in administration work in the quantitative samples compared to disaster victims engagement in the qualitative samples. 35 per cent of actors in qualitative phase were more positive about their own abilities as shown in Table 8.9, p.428 and discussed in section 8.2.4, p.232: they never expected to do so and not ready). Actors clearly admitted a lack of knowledge and confidence towards their own abilities in emergency management. Knowledge and abilities of actors contributed to the positive development of the department of:

1. Department Related to the Scene of Emergency Housing;
2. Department has Specific Regulation towards Regulatory Compliance.

The knowledge and abilities of actors had no influence, whether the department was related to emergency housing or not, or if the department has specific responsibility for regulatory compliance or not.

The tests show that strong significant positive relationships of both benefit (F1) and suitability (F2) of regulations and guidelines in the MNSC Directive 20. They perceived that the programme is suitable if it is benefiting both actors and disaster victims. Actors perceived themselves as against the fact that regulatory compliance would benefit them and the disaster victims. They were not agreed that present MNSC Directive 20 is suitable for them and disaster victims (reasons are shown in qualitative analysis section 8.3.3, p.251; 8.3.4, p.252; 8.3.5, p.254 and 8.3.6, p.256: the programme only benefiting the department level and the actors felt that their daily workload still increased from time to time). Different levels in Malaysian emergency mechanism benefited from regulatory compliance but the MNSC Directive 20 is not suitable to implement at every level. The statement of

suitability of regulatory compliance implementation was confirmed by the actors from national, state and districts respectively. Statistically, background characteristics of actors have no influence on the benefit and suitability of regulations and guidelines.

Statistically, background characteristics of actors did not influence actor's support to the MNSC Directive 20. However, the tests did show that there were strong significant positive relationships amongst the actors:

1. Ability to apply (K2);
2. Their feeling, moods, emotions and sympathetic nervous system (Section B);
3. Willingness to support the implementation of regulatory compliance.

However, the significant relationship is negative between both K2 and affective attitude towards their willingness to support the implementation of regulatory compliance (Q31). Even if actors' internal feeling were positive and were in high ability to implement regulatory compliance, they would prefer not to support the implementation of regulatory compliance because there was a negative correlation between actors' ability-affective component and willingness to support the implementation of regulatory compliance. However, they showed that actors were generally not supportive of the idea of regulatory compliance. Actors would prefer not to attend in service training even if their:

1. Department had Actors to look after Regulatory Compliance;
2. Department Related to the Scene of Emergency Housing;
3. Department has Specific Regulation towards Regulatory Compliance because (the support and willingness to develop skills towards the regulatory compliance had no influence by these background characteristics).

They also reasoned that most of the actors were unsure whether to support the implementation of regulatory compliance, but clearly object towards training. Thus, most of department levels had a lack of actors trained in the field of emergency housing. However the chairmen were positive that actors were willing to support and attend training themselves to develop knowledge and skills in emergency management, but not all of them.

Actor's knowledge (K1), feelings (affective component) and willingness to attend in-service training (Q31) had a strong relationship. The significant relationship is negative between both K1 and affective attitude towards their willingness to support the

implementation of regulatory compliance (Q31). If actors' internal feelings were positive that they had a high ability to implement regulatory compliance, they would prefer not to attend relevant in-service training because there was a negative correlation in actors' willingness to attend relevant in-service training.

The findings from Q10 and Q13 of the questionnaires showed that there was a conflict between actors' perceptions of the 'rights of disaster victims in regulatory compliance' and the 'benefit of rights, disaster victims might get from the MNSC Directive 20'. The actors perceived themselves as understanding the concept of regulatory compliance (Q1) and the implementation (Q2) with the positive perceptions (CMS 3.73) and (CMS 3.73) respectively. However, they perceived themselves as having negative perceptions toward the matter of 'rights of the disaster victims in regulatory compliance'. They were slightly neutral on the 'benefit of rights that disaster victims might get from the MNSC Directive 20'. They also denied that regulatory compliance might increase the relationship between actors and disaster victims. Actors agreed that the disaster victims do extend to the rights of equal opportunities in regulatory compliance with the MNSC Directive 20.

Statistically, disaster victims' participations did increase actors working workloads and actors' background characteristics did influenced working responsibility if regulatory compliance was implemented. Different Professional Status' had different loads of responsibilities. However background characteristics did not influenced actors' perceptions of disaster victims' suitability to be included into the process of regulatory compliance. Most actors were not sure whether it is suitable to get the disaster victims to participate in the process of regulatory compliance. They highlighted that it was not appropriate to involve disaster victims with disruptive behaviour but might tolerate the participation if the disaster victims had knowledge, with or without experience, worked as a group and the interaction will not create complications. Actors admitted that disaster victims should not be isolated but were unsure whether to let the responsibility for handling disaster victims for the specialist only. Actors have a responsibility for the education of victims in the process of regulatory compliance but were unwilling to carry responsibility for educating the disaster victims due to the present conditions (unqualified).

The findings for conditions for accepting regulatory compliance showed that actors may be persuaded to accept regulatory implementation, if certain conditions are met by the

Prime Minister's Department. The most dominant condition was the need for specialists support to be provided who are trained in emergency housing and emergency management. This was also confirmed by chairmen; managers and technical staff members; and clerical staff members and officers who agreed that actors would be willing to give regulatory compliance a chance if actors were given specialist support. Actors would also positively accept regulatory compliance if they are given direct orders from their superiors and accepted only disaster victims without disruptive behaviour. The findings also showed that actors would not accept regulatory compliance voluntarily unless there are some changes in working with incentives and their contribution will be assessed in annual appraisal (reasons are revealed in qualitative analysis section 8.4.4, p.267; 8.4.5, p.268; 8.4.6, p.269 and 8.4.7, p.271).

Actors perceived themselves as having negative capability towards their own understanding and knowledge (cognitive) in regulatory compliance. Variables that contributed to their own attitudes were different gender, how many with experience worked in the department, which level do they serve, whether they attended the training or not, whether the department has trained actors, whether the department has actors handling regulatory compliance or whether the department related to the scene of emergency housing or not. The state and district level were the mechanism level that influenced most of the attitudes towards their understanding and knowledge in regulatory compliance implementation. Actors' Professional Status and the Department with Specific Regulation towards Regulatory Compliance did not influenced actors' attitudes (understanding and knowledge) in regulatory compliance.

Actors perceived themselves as having a perception of negative reactions towards their own feeling, moods, emotions and sympathetic nervous system (affective) in regulatory compliance. Different Level of Control, Attendance to In-service Courses, Availability of Trained Actors in the Department, Availability of Actors to look after Regulatory Compliance and Department Involvement to the Scene of Emergency Housing contributed to the ways actors react in regulatory compliance implementation.

Actors perceive themselves as having a perception of a neutral behavioural response (conative) of attitudes in regulatory compliance. Actors' perception of affective attitude resulted from their differences in Gender, Professional Status and Status of Attended In-service Courses, but not the issue of How Long they had been Working, which Level they

Work, Availability of Trained Actors in Department, Availability of Actors to look after Regulatory Compliance, Department Related to the Scene of Emergency Housing and Availability of Specific Regulation in Department towards Regulatory Compliance.

Most of actors were disagreed over the regulatory compliance plan. The most cited reason among actors who disagreed with the regulatory compliance was the perception that regulatory compliance would disrupt the normal routine of the working process, besides other reasons such as workload increment, effect on actors and other disaster victims' adaptation and actors working without appropriate skills. Actors who were undecided used 'if' (more toward supporting the implementation) and 'but' (more toward against the implementation) for the reasons. Actors with the 'if', reasons were cited that they wanted to get more support, such as information, training and resources. Meanwhile, actors with the 'but' reasons were cited that it is difficult to implement regulatory compliance due to disaster victims having behavioural problem, disaster victims' group is too large, regulatory compliance will increase actors' workload and needs to be planned carefully.

Only a few actors (11.1 per cent) agreed with the idea to implement regulatory compliance. They cited that the MNSC Directive 20 is formulated for good reasons such as to help in the realisation of the 'caring society'; would promote and develop self-esteem in actors and disaster victims; and is in line with the national philosophy of equal opportunities (National Constitution: see section 4.1, p.92). However, most of actors (82 per cent) still wanted to see changes at the department level before regulatory compliance implementation even though some of them were against the implementation. The most cited suggestion was that actors should be given in-service training, the department should be articulate on the rationale of implementing regulatory compliance and all department involved in the regulatory compliance programme should be provided with appropriate physical resources and working equipments.

At the present stage in the MNSC Directive 20 implementation, the main issues were: actors not receiving enough information about the programme; the introduction of implementation will increase their workload due to misunderstanding; not enough resources; disaster victims involvement; and actors themselves are not ready due to lack of training. Actors suggested that actors should be given in-service training and explain more about rationale (see qualitative analysis section 8.2.5, p.238) of the MNSC Directive 20 implementation and including victims in disaster victims group towards promoting 'caring

feeling' (see qualitative analysis section 8.4.2, p.264). Information about this programme should be done more specifically and not simply in general.

As a conclusion, the result indicates that if actors were knowledgeable about regulatory compliance and perceived themselves as having the appropriate and necessary skills in line of duties, they would be likely to exhibit positive feelings towards regulatory compliance and may then be the more willing to accept its implementation. The real fact was that actors were unwilling to accept regulatory compliance in the present climate. Actors do wish to see changes at the department level before regulatory compliance is implemented. Yet actors in general are also of the opinion that actors would accept regulatory compliance if directed by the Prime Minister's Department. As civil servants actors are of course required to observe and implement the Prime Minister's Department directives. Nevertheless in the light of the present research evidence there may be a need for careful preparation at several levels before regulatory compliance implementation. Careful preparation might be vital to secure maximum co-operation from the working force and to prevent alienation and consequent failure. As a result, the questionnaire findings showed that generally actors have negative attitudes to regulatory compliance.



## CHAPTER 8

### Qualitative Analysis

“Planners need to become good ethnographers of previous local responses to disaster events. They need to know the history of community responses to disasters, the successes of previous plans, warnings, evacuations, and search and rescue efforts; and the political dynamics existing among the significant local institutions, neighborhoods, ethnic groups, social classes and leaders”.

(Aguirre, 1995: 21-22)

#### 8.1 Introduction

This chapter will express qualitative analysis (consists of components of attitude: cognitive analysis in section 8.2, affective in section 8.3 and conative in section 8.4) with an emphasis in the discussion of the themes (see section 6.5.4, p.178) that emerged from the actors’ different level of control and profession leading to a statement of general conclusions. The frequencies of actors’ attitudes to the variables investigated in quantitative analysis were exemplified and clarified by the use of direct quotations from the essentially qualitative material obtained (see section 6.5.7, p.187).

The sequences of analyses are presented according to category of components from cognitive, affective and conative and from the variables measured (sequence in the questionnaire). Actors’ perceptions were administered in sequence from positive towards the issue pertaining, undecided to negative [(1) affirmative about the issues being discussed (2) undecided on the issue and (3) negative towards the issue] in most designated level (national, state, district and under special body appointed by the government). For every question discussed, the individual actor’s reasons for having affirmative, undecided or negative views were coded (see Appendix 18, p.357) according to its interpretative similarities.

The results of data analysis were summerised and presented as tables as shown in Appendix 24, p.426. These tables consist of:

1. Professional Status;
2. The Subject Matter;

3. Level Control (N: National, S: State, D: District and SB: Special Body);
4. Frequencies;
5. Percentages.

Those who were positive about the issues in the biographical data section in the survey questionnaires were selected for the interviews (see section 6.5.1, p.173). The numbers of actors interviewed (71 respondents) are considered as significant due to their direct involvement in providing emergency housing in Malaysia. Conclusions were made at the end of this chapter that highlights the analysis. They are correlated and presented in three paragraphs consisting of cognitive, affective and conative components.

## **8.2 Cognitive Component of Attitudes to Regulatory Compliance**

The cognitive element of actor attitudes would be influenced by actors' perceived knowledge of regulations in the MNSC Directive 20. This knowledge could have been developed through actual experience of interacting among themselves and the disaster victims. If the experience had been positive (affirmative about the issues being discussed), it could be assumed that they might have developed a positive outlook about their colleagues and disaster victims and they would have a favourable view of the regulatory compliance process. But if their experience had been negative (negative towards the issue), they might eventually view the concept of regulatory compliance with a negative perception.

### **8.2.1 Actors Perceived Knowledge of the Regulatory Compliance under the MNSC Directive 20**

35 per cent of actors admitted that they received related information about the MNSC Directive 20. However, the biggest contribution (88 per cent) was from technical staff members those who claimed that their department level received some circulars from the Prime Minister's Department regarding the MNSC Directive 20 (as shown in Table 8.1 in Appendix 24, p.426). Most of the actors (65 per cent) admitted that they never receive any information regarding the MNSC Directive 20. Only one out of four managers (under state level) reported having received such circulars. One clerical staff (under national level) and three clerical staff (under state level) claimed that they had read the circulars. One clerical

staff (under national level) who had seen these documents admitted that she could not remember the contents.

The rest of the actors interviewed claimed that they had never seen any related documents. Non-involvement in their department levels' towards the MNSC Directive 20 was the reason cited by these actors. Moreover, they revealed that administrators at department level had not distributed these documents to them. One manager (under national level) claimed that since being posted there she had never received any such documents. To cite her response as argued, in translated quotation in Appendix 23 (1.1), p.392 that:

*“When I was posted to this department level, its regulatory compliance practice was already established. Ever since I arrived I have never received any circulars from the Prime Minister’s Department or other relevant authorities concerning regulatory compliance towards disaster victims under resilience difficulties”.*

This reason was supported by the manager (under district level) who said that all circulars regarding emergency housing that she had received were meant for the technical staff members and not open to others. But the technical staff (under national level) argued that the documents are available in the files of department level. The clerical staff in the department level was reportedly not interested in reading them since the contents do not concern them. Technical knowledge in emergency housing is not part of their responsibility.

Therefore, even though this department level had been sent official documents on emergency housing, majority of the clerical staff had not read them, thus limiting the knowledge regarding the MNSC Directive 20. As for other actors, the knowledge of the MNSC Directive 20 documents in the department level might be inferred in Table 8.1 in Appendix 24, p.426. Almost 63 per cent had no sight of available circulars. Table 8.1 in Appendix 24 summarises response to the question of documents being circulate to the department in Disaster Management Mechanism in Malaysia. To quote from one clerical staff (under national level) as argued, in translated quotation in Appendix 23 (1.1), p.392 that:

*“I am not sure the department level has any circulars concerning the department level towards the MNSC Directive 20. It was never discussed before. Maybe because of I am not an emergency housing actor”.*

#### **8.2.1.1 The Intention of Prime Minister’s Department towards Regulatory Compliance**

Actors were asked about the intention of the Prime Minister’s Department towards regulatory compliance. Actors interviewed claimed that all departments are already applying rules and regulation according to the circular. A total of 38 actors (54 per cent) replied that they accepted this implementation as a good step in providing emergency housing. To quote from one manager (under national level) as argued, in translated quotation in Appendix 23 (1.1.1), p.392 that:

*“After the Highland Tower tragedy in the 90s the department level decided after consultation with our technical staff to straighten the regulations in developing new development even in providing emergency housing. Main regulation to be applied are Land Conservation Act, Environmental Quality Act 1974, Local Government Act 1976, Road, Drainage and Building Act and Occupational Safety and Health Act will definitely become the main reference”.*

10 of the actors (14 per cent) expressed mixed feeling about the implementation. One technical staff (under national level) said that, even though the purpose was good, it was not properly implemented after disaster occurred. Translated quotation as argued, is as shown in Appendix 23 (1.1.1), p.392 that:

*“What we did was to place selected regulation according to the resources available because on the scene of disaster everything has to be done fast and unfortunately we have to put the regulation aside. For example we have to put many disaster victims in one hall and it is cramped. We have to wait for quite sometime until other resources arrived”.*

23 actors (32 per cent) did not think it was a good idea as shown in the summaries Table 8.2 as shown in Appendix 24, p.426. One of the clerical staff (under national level) did not think the implementation could happen because practically it is impossible. He argued, as shown in translated quotation in Appendix 23 (1.1.1), p.393 that:

*“The intension is good but the implementation for totally complied towards regulatory and guidelines is impossible”.*

### **8.2.2 Actors’ Understanding of Regulatory Compliance in Malaysia**

Actors were asked to express their understanding of the term regulatory compliance. 62 per cent of actors familiar about the concept of regulatory compliance as listed in Table 8.3 in Appendix 24, p.426. They were all exposed to the practice of regulatory compliance in training before being appointed as government officers. There are four groups of interpretations and all of them are consistent with the directions of the national civil service purposes. Most of the actors described regulatory compliance as the efforts of personnel in department of agencies to comply with relevant regulations. The rest of them described how regulatory compliance is the responsibility of their agencies that should ensure that their activities are in compliance with all applicable federal, state and local laws and regulations; agencies should also ensure that all staff members are appropriately credited for the functions they will be performing; and agencies should be aware of and comply with, any state or local requirements related to the provisions or regulations. However, a total of 27 actors (38 per cent) replied that they either had not heard of regulatory compliance or had no understanding of the types of compliance it refers to under the MNSC Directive 20.

### **8.2.3 Perceived Knowledge of Actors by the Term Emergency Housing**

All actors understood the term emergency housing as shown in Table 8.4 in Appendix 24, p.427. Even though there is no specific definition in the MNSC Directive 20 regarding the term emergency housing, actors were able to interpret according to their experience and exposure in trainings. There were five types of interpretation given by the actors. 55 per cent of actors interpreted emergency housing as a place where the fast build process after an emergency occurs, before disaster victims move to permanent housing. The rest of them understood the meaning of emergency housing as any rigid or mobile structures, without permanent attachment to the ground, for use as human shelter within 30 consecutive days; a closed partition or group of rooms built within an existing dwelling to form a single habitable unit; an enclosed floor space to make a room or habitable area so that disaster victims can continue livelihood; and a wholly or partly enclosed space intended to be used

by disaster victims. One technical staff (under national level) argued, as shown in translated quotation in Appendix 23 (1.3), p.393 that:

*“As far as I am concerned, when the life of a person is at risk by a natural or non ordinary situation, emergency housing is the fast build process when an emergency occurs”.*

#### **8.2.3.1 Actors’ Concepts of Disaster Victims under the MNSC Directive 20**

The majority of actors (76 per cent) interviewed described the term disaster victims as referring to disaster victims with resilience difficulties. This is the official Prime Minister’s Department definition of disaster victims under the MNSC Directive 20. Meanwhile, 14 per cent of actors describe victims as the disaster victims with physical effects under resilience difficulties, 3 per cent of them describe victims as the disaster victims under adaptation problems, 7 per cent of actors understood that victims are disaster victims with resilience difficulties under an authorities’ responsibility. The definitions of disaster victims under the MNSC Directive 20 are summarised in Table 8.5 in Appendix 24, p.427.

#### **8.2.4 Department Level’s Discussions on Regulatory Compliance**

Only 8 per cent of actors had frequently discussed regulatory compliance at department level. 14 per cent of them had discussions with only selected actors related to their daily routines. Obviously, 69 of actors interviewed never had discussion with peers at department level. Actors’ contribution of views was illustrated in details below. Table 8.6 in Appendix 24, p.427 summarises response to the question of actors’ perception regarding discussion of regulatory compliance.

##### **A. Department (under national level) that had tried Direct Contact with Disaster Victims**

Four clerical staff members admitted that they had discussed this topic with other actors. They argued that there were several discussions between them, technical staff and the manager, formally and informally. One clerical staff argued, as shown in translated quotation in Appendix 23 (1.4), p.394 who said that:

*“When we planned to place disaster victims into disaster victims’ group, the manager and I invited other actors who agreed to have these disaster victims in their groups for discussions on how the*

*programme should be implemented. Actors who were not involved in the MNSC Directive 20 did not take part in the discussions”.*

Three technical staff members admitted that they had discussed only some aspects of regulatory compliance with other actors involved in the department level related to the MNSC Directive 20.

The manager had never discussed regulatory compliance with other actors formally or informally.

#### **B. Department (under national level)**

Only three clerical staff members reported talked to technical staff regarding the possibility of disaster victims being included in their groups in implementing regulatory compliance.

One technical staff at this department level reported that he had informal talks to several of colleagues regarding regulatory compliance. He argued, as shown in translated quotation in Appendix 23 (1.4), p.394 that:

*“I had a policy of open-group. I invited actors to come over to my group whenever they feel like dropping in. When they come over (even not all of them) I try to tell them about the disaster victims in my group. I find this more effective because if they can see the disaster victims for them if we make site visit, and when they see these disaster victims they tend to ask questions about them”.*

The other eleven clerical staff members had never discussed regulatory compliance with other actors formally or informally. Five technical staff members also never talked about this matter to others.

#### **C. Department (under state level)**

The manager said that the coordinator had discussed about the intention of regulatory compliance with other actors. To quote as argued in translated quotation in Appendix 23 (1.4), p.395 that:

*“The discussions were done informally between me, technical staff and clerical staff involved in the handling of these disaster victims included in disaster victims’ group. There were no such discussions with other actors who were not involved in the programme of these disaster victims”.*

Three technical staff members claimed that they had tried informally to discuss with several other clerical staff regarding the possibility of disaster victims being included in disaster victims' group. One of the technical staff members admitted that there is no point talking about this if other actors not interested.

The other four technical and eight clerical staff members said that they had never discussed regulatory compliance in this department level.

#### **D. Department (under district level)**

The manager, one clerical staff and one officer from district level never discussed this issue with other actors.

Nine clerical staff members at this department level admitted that they had never discussed regulatory compliance with either the manager or other officers. This was confirmed by another four technical staff members and four officers. The reason was that the department level did not receive circulars regarding compliance and the MNSC Directive 20. In fact, the discussions according to the manager were more about to back the regulations in the MNSC Directive 20. He argued, as shown in translated quotation in Appendix 23 (1.4), p.395 that:

*“We had never discussed the possible direct contact with disaster victims under resilience difficulties in this department level. But we did discuss on few occasions about a regulatory compliance for disaster victims established recently in one disaster department level nearby. Our discussions were on how to provide things that are not in regulations or guidelines that are sometimes requested by the disaster victims. This is the opposite of what we are discussing now”.*

#### **E. Department (under special body appointed by the government)**

The manager had briefly mentioned about regulatory compliance once during her department level's formal staff meetings. Three clerical staff members had also discussed about regulatory compliance with other actors.

Three technical staff members had mixed reasons and only discussed about it with selected actors. It is possible that their work will be misjudged by other actors for not doing their job accordingly. Consequently they will just keep silent on the things they discussed, as argued in translated quotation in Appendix 23 (1.4), p.395 that:



*“Maybe the department levels’ were concerned about bureaucracy and handed over this matter to other relevant authorities. For me I better keep it quiet because of what you did, didn’t meant all were rights. We were not interested to talk about this”.*

One technical staff and two clerical staff members admitted that they were not having any discussions with other actors on the possibility of disaster victims being included in disaster victims’ group.

#### **8.2.4.1 Actors’ Perceived Knowledge on Regulatory Compliance towards Disaster Victims under the MNSC Directive 20**

Only 10 per cent of actors had knowledge about disaster victims’ involvement towards the regulatory compliance process. Meanwhile, 20 per cent perceived themselves as unsure, moderately know about it, or some do and some do not know about disaster victims’ involvement. Most of the actors (65 per cent) did not know about actors’ involvement in the regulatory compliance and decision making process. Actors’ contributions of views are illustrated in details below. Table 8.7 in Appendix 24, p.428 summarises response to the question of actors’ perceived knowledge on disaster victims’ involvement in regulatory compliance.

##### **A. Department (under national level) had tried Direct Contact with the Disaster Victims**

Three technical staff members said that actors who regularly visit the disaster site during their work were usually sensitive to the general welfare of disaster victims and would make an effort to help them in whatever way possible. To quote one such technical staff member, as argued in translated quotation in Appendix 23 (1.4.1), p.396 that:

*“There are actors who know my group of disaster victims and there are also those who don’t. Those who regularly visit our group during their working time are aware of the existence of our disaster victims, and usually are sensitive towards these disaster victims’ welfare. If anything happens to our disaster victims they will either help them or inform us about it. Actors who are not interested only know these disaster victims from a far”.*

The manager claimed that only small minorities of actors from this department level were regularly discussing the disaster victims' welfare and these actors were the technical or clerical staff involved at the disaster site programme.

Three technical staff members and six other clerical staff members perceived that actors in this department level did not personally know about regulatory compliance and disaster victims' involvement.

#### **B. Department (under national level)**

Three clerical staff members and two technical staff members claimed that they had good knowledge about the department level's involvement towards regulatory compliance because they regularly interact with disaster victims by making frequent visits to the disaster site.

Three clerical staff members who had experienced interacting with the disaster victims in disaster victims' group admitted that they knew only those who were sent to their group, not every single victim at the disaster site. The rest of the actors in this department level admitted that they did not know disaster victims personally. To illustrate, as argued in translated quotation in Appendix 23 (1.4.1), p.396 that:

*"I regularly visit the disaster site, just to talk to the technical staff, and say hello to the disaster victims. I don't know personally their adaptation problems, but I do know that some of them are having problems to recover compared to other disaster victims. Some of these disaster victims experienced some kind of behaviour problems as well".*

One technical staff and three clerical staff members felt generally that actors in this department level do not personally know about the department level's involvement of disaster victims towards regulatory compliance.

#### **C. Department (under state level)**

One clerical staff interviewed reported that he knows the disaster victims well, because he was responsible for overseeing them everyday during the programme. To quote as argued in translated quotation in Appendix 23 (1.4.1), p.396 that:

*“I know these disaster victims quite well even though I had been posted to this department level for a month. This is because of I am given the responsibilities to oversee their everyday resilience difficulties and welfare”.*

The manager and two technical staff members felt that actors only knew the disaster victims who were placed in their disaster victims’ group, but not entire disaster victims. Technical staff claimed that actors hardly visit the disaster site.

Five technical staff members interviewed considered that the actors in the department level did not personally know the disaster victims, due to lack of interest. Seven clerical staff members admitted that they knew very little about these disaster victims because they rarely or never go to the disaster site.

#### **D. Department (under district level)**

One clerical staff claimed that she knew the disaster victims because she regularly visited the disaster site. To quote as argued in translated quotation in Appendix 23 (1.4.1), p.396 that:

*“We visited the disaster site regularly until both side of actors and disaster victims are satisfied with the work. Of course we know disaster victims very well especially their leaders in my group that I looked after”.*

Two clerical staff members and three technical staff members who had experienced having disaster victims in their groups admitted knowing only those who were in their groups. To quote from one technical staff as argued in translated quotation in Appendix 23 (1.4.1), p.396 that:

*“Our contact with the disaster victims is very limited because we had to limit our relationship as actors and disaster victims. Not more than that. That was why our knowledge about them is very little”.*

The interviews show that the majority of actors in this department level knew very little about their department level’s involvement with disaster victims under the MNSC

Directive 20 and this was supported by one of the department levels' technical staff and a manager.

**E. Department (under special body appointed by the government)**

One clerical staff recognised some of the disaster victims in his group. Four technical staff members, a manager and four clerical staff members in this department level believed that actors knew very little about the disaster victims. They assumed that actors were not interested and the department levels' are not officially under the government agencies because they are appointed subject to certain project developments only. Table 8.7 in Appendix 24, p.428 summarises response to the actors' perception regarding knowledge of their department level.

**8.2.5 Actors Perceived Rationale of the Prime Minister's Department Plan**

More than half of actors interviewed (55 per cent) understand the rationale of regulatory compliance implementation. Other actors interviewed stated that very few actors really understand the reason why the Prime Minister's Department wants to implement full regulatory compliance under the MNSC Directive 20. Lack of information and lack of interest were cited as the reasons. One technical staff (under national level) argued, as shown in translated quotation in Appendix 23 (1.5), p.397 that:

*“Regulatory compliance if properly implemented could have a positive effect to disaster victims under resilience difficulties. Sadly as far as I can remember no one on behalf of the Prime Minister's Department has come to this department level to explain to all our actors the rationale and the importance of its implementation and so on. You can't expect actors to simply accept something that they don't understand or implement a new concept of compliance that they know very little about. Presently regulatory compliance is being planned by the top administration of the Prime Minister's Department, but we, the actors in the department level have no clue to what it is all about or what is expected of us with reference to the programme”.*

These opinions were supported by other officers, who felt generally that actors do not know why the Prime Minister's Department wants to implement regulatory compliance. He felt actors had a very low interest due to no connection to these disaster victims.

The actors were asked to suggest possible reasons for the Prime Minister's Department plan to implement full regulatory compliance. Thirty two clerical staff members either replied that they did not know or would not give any comment. Several reasons were suggested as detailed in Table 8.8 in Appendix 24, p.428.

#### **8.2.6 Perceived Abilities of Actors towards Regulatory Compliance under the MNSC Directive 20**

35 per cent of actors were positive about their own ability to comply with the MNSC Directive 20. Meanwhile, 13 per cent perceived themselves as unsure, besides of other 52 per cent were negative about their own ability to comply with the MNSC Directive 20. Actors' contribution of views was illustrated in details below. Table 8.9 in Appendix 24, p.428 summarises response to the question of actors' perceived abilities of actors towards regulatory compliance under the MNSC Directive 20.

##### **A. Department (under national level) had tried Direct Contact with the Disaster Victims**

The manager in this department level was confident that the department ability towards regulatory compliance under the MNSC Directive 20. She cited based on her experience of carrying out a few projects to provide accommodation to the disaster victims. She argued that actors could comply with these regulations. To quote, as shown in translated quotation in Appendix 23 (1.6), p.398, that:

*"I think actors are able to comply with any regulations in order for them to deliver any housing to the disaster victims. Even though it is hard to comply totally, at least it can please the disaster victims. Therefore I don't have any hesitation in my colleagues".*

Two technical staff members at the department level had a positive perception of actors' ability towards regulatory compliance. They argued that they had managed to comply with all regulations and guidelines without going to the in-service training in emergency management or relevant training. They acknowledged it would be better if they had been trained in emergency housing.

Three clerical staff members had mixed views arguing that they might not have the patience to comply with all regulations under the MNSC Directive 20.

Five clerical staff members had negative perceptions of their working capacity because they had a lack of experience and training. One clerical staff declared, as argued in translated quotation in Appendix 23 (1.6), p.398 that:

*“I don't think I have the capability to comply totally to the regulations because we just following orders given from two sides. One from our bosses and the other side is from the disaster victims. Nothing is perfect”.*

#### **B. Department (under national level)**

Clerical staff felt that they were able to comply with all regulations because they just felt they could and they were used to work in disaster victims' group. One actor said that she could comply with regulations because she had attended in-service training in emergency housing. Three technical staff members at this department level felt that actors could comply with all regulations under the MNSC Directive 20. One Technical staff argued as shown in translated quotation in Appendix 23 (1.6), p.398 that:

*“There are actors working in regulatory compliance who never had any training in emergency housing. With a right guidance they have managed to learn to handle these disaster victims and regulations quite well. If we have enough training in emergency housing, then we don't need many actors to look after our level of compliance. I guess any actors can comply with regulations related to emergency housing. The requirements are interest, commitment and a little help from experienced technical staff”.*

Four technical staff members felt that actors were ineffective in regulatory compliance because they had never been specially trained in the field of emergency management or inappropriately experienced. To quote as argued in translated quotation in Appendix 23 (1.6), p.398 that:

*“Every actor can comply because that's what actors do. But how effective is the compliance? Handling disaster victims under MNSC Directive 20 are not easy. I am not convinced that actors can comply totally because of their inexperience with these disaster victims and regulations at the same time. New housing development is a different thing”.*

Five clerical staff members had negative perceptions of their ability because they had not been trained in emergency housing and had no experience of handling these disaster victims.

**C. Department (under state level)**

Six technical staff members felt that actors could comply with relevant regulations because several of them had been officially trained in emergency housing. But they admitted that it takes time and determination to develop new knowledge and responsibilities if necessary such as in medical response. One technical staff argued, as in translated quotation in Appendix 23 (1.6), p.399 that:

*“There are only two officially trained technical staff in disaster management in this department level. The rest of us had never attended in-service training. If we can do it, why shouldn't other actors be able to it as well because it is part of our duties as government servant?”*

One clerical staff claimed that he is able to comply with regulations because by working together with technical staff members those were familiar with regulations and guidelines in emergency housing. He argued, as shown in translated quotation in Appendix 23 (1.6), p.399 that:

*“I think I can if given a little bit of training in emergency housing. Fortunately many of the actors’ especially technical staff were on site. Even though they had never attended in-service in emergency housing they were familiar with regulation and guidelines”.*

The manager felt that the actors would have difficulties in regulatory compliance because they were not trained in emergency housing. Even one technical staff with in-service training in emergency housing had a negative perception of the actors’ ability to comply with regulations, because actors can not make their own decision. All decisions are made unanimously at the department level. Seven clerical staff members felt that they were unable to comply with regulations because they do not have the knowledge in MNSC Directive 20.

#### **D. Department (under district level)**

The manager felt that his staff could comply with the regulations under the MNSC Directive 20, but not to fully comply with the request from disaster victims. This was also the perception of four clerical staff members and one officer.

Three technical staff members had positive perceptions of their ability to comply, but not to respond to the disaster victims' demands. Two clerical staff members were unsure about the abilities of other colleagues to comply with regulations and guidelines.

Four officers had negative perceptions about the actors' ability to comply with regulations under the MNSC Directive 20 because they were not trained in emergency housing. Four clerical staff members cited as not being trained in emergency housing and/or having no experience in working with the disaster victims under the MNSC Directive 20 as the reasons for their perceived inability to comply with regulations. Sometimes it depends on the public pressure or demands whether actors should stick to the regulations or not. One of them argued, as shown in translated quotation in Appendix 23 (1.6), p.399 that:

*“We had disaster victims in this department level who actors classified as having resilience difficulties. We tried to handle them as best we can until now but they still cannot understand what regulations and guidelines are all about. All they know is their own needs and that we can't make it happened because it was out of the orders given by our superiors. But that demands came from communities that we can not simply put aside. It is out of our control”.*

#### **E. Emergency Housing Department Level (special body appointed by the government)**

Four technical staff members felt that actors could comply with regulations even though they had not been officially trained in emergency housing. They admitted that it took a lot of hard work and determination before they could learn about disaster victims' behaviour and knowledge of regulatory compliance. As one technical staff argued, as shown in translated quotation in Appendix 23 (1.6), p.399 that:

*“I was requested to manage this department level because of the department was short of staff. I agreed voluntarily to work here. When I first arrived I just didn't know how to start to comply with regulations, because of my work experience had always been more with disaster victims but not*



*guidelines or regulations. For days I had sleepless nights. With the manager's encouragement and the help of other technical staff, I slowly began to communicate with the disaster victims using psychology and translate it accordingly with the requirement in rules and regulations. Now I feel confident in my work. Thus if I can do it, I am sure other actors can do it too".*

One manager was unsure without cited any reason. He argued, as shown in translated quotation in Appendix 23 (1.6), p.399 that:

*"I am not sure about this because compliance is subjective and we have no instrument yet to measure it. Till now the only way to know about it if there is any complaint about the project carried out".*

One clerical staff and four technical staff members in this department level assumed that actors were not able to comply with regulations under the MNSC Directive 20 because they were not trained in emergency management and housing. Table 8.9 in Appendix 24, p.428 summarises the response with over 50 per cent showing that they are uncertain.

### **8.3 Affective Component of Attitudes**

The affective information consists of how an individual feels about the attitude towards regulatory compliance and involves the feelings, moods, emotions or sympathetic nervous system activity that is aroused in a person in relation to the attitude. Attitudes therefore are the positive or negative evaluations a person gives to an attitude towards regulatory compliance about their colleagues and disaster victims. Even if actors have negative feelings (negative towards the issue) or are non-committal (undecided) about the regulatory compliance process, repeated exposure to the emotional experiences of disaster victims might change their expectations and might gradually shift their feelings from negative to positive. A thorough analysis had been made to find out patterns of relationship between levels of action from national to local (district). As a result, there were typical answers at the national and state levels. Therefore analyses of perception at the national and state level by the actors are as shown in the cognitive component of attitudes at the beginning of this chapter. Only answers at the district level and the department appointed by the government are highlighted in this section and forward in this chapter. However, the detail analyses in

actors' affective components of attitudes at national and state level are as shown in Appendix 25, p.429.

### **8.3.1 Perceived Rights of Disaster Victims under the MNSC Directive 20 to Regulatory Compliance**

Most of actors whether unsure (47 per cent) or agreed (41 per cent) to the government intentions. A few of the actors (12 per cent) still disagreed to the rights of disaster victims to be included under the MNSC Directive 20. The fact was that they received very little information about the MNSC Directive 20 that allocates the rights of disaster victims. Actors' contribution of views was illustrated in details below. Table 8.10 in Appendix 24, p.429 summarises response to the question of actors' perceived rights of disaster victims under the MNSC Directive 20.

#### **D. Department (under district level)**

Two officers and seven clerical staff members declared that disaster victims have the rights to regulatory compliance due to equal human rights opportunities under the MNSC Directive 20. One officer argued, as shown in translated quotation in Appendix 23 (2.1), p.401 that:

*“They have the rights especially disaster victims under resilience difficulties because I heard for the time being only the government is capable of fulfilling their needs”.*

One manager, two officers, four technical staff members and one clerical staff had mixed views. They argued that these disaster victims have rights, if ways can be found to handle them effectively in disaster victims' group, but not otherwise. They also felt that disaster victims may have the rights to be included in the process of decision making since they are being handled under the same programme with the actors. The rights should only be extended to disaster victims who might be able to cope with the rigors of disaster adaptation, both psychologically and socially. As one officer argued, as shown in translated quotation in Appendix 23 (2.1), p.401 that:

*“It is not just the question of rights; it is whether these disaster victims can cope with disaster adaptation. What's the point of granting them their rights to regulatory compliance when the*

*objectives to assist them are unreachable? They are in trouble and no where to turn to. Anyway it is the government responsibilities to look after them”.*

One officer and two clerical staff members said that disaster victims under the MNSC Directive 20 should be handled by the specialised actors in emergency housing and regulatory compliance because the disaster victims are vulnerable and need guidance.

**E. Department (special body appointed by the government)**

The manager and one technical staff agreed that disaster victims have the rights to regulatory compliance because disaster victims should be part of other communities and for humanitarian reasons. A manager argued, as shown in translated quotation in Appendix 23 (2.1), p.401 that:

*“If there are ways that disaster victims under resilience difficulties can be helped, then they should be included in order for them to become part of other communities, and for humanitarian reasons”.*

Three technical staff members and one clerical staff in this department level had mixed views on the disaster victims’ regulatory compliance rights. They agreed that these disaster victims have the rights to be placed for non-religious demands so that they can learn to accommodate in disaster victims’ group without any hesitation. One technical staff argued, as shown in translated quotation in Appendix 23 (2.1), p.401 that:

*“They have the right but would only be suitable for non-religious demands. Regulatory compliance in non-religious demands would permit disaster victims to actively interact with actors and thus learn how to accommodate themselves to disaster society without hesitation”.*

Four clerical staff members declined to make any comment. Table 8.10 in Appendix 24, p.429 shows the group of actors’ perception regarding the rights of disaster victims under the MNSC Directive 20 to regulatory compliance.

### **8.3.2 Perceived Benefit of Regulatory Compliance to Disaster Victims under the MNSC Directive 20**

Actors were asked about the benefit of regulatory compliance to disaster victims under the MNSC Directive 20. All the actors mentioned about the knowledge and social benefit that the disaster victims might get from the implementation of regulatory compliance. However some actors interviewed expressed their opinion that some disaster victims with adaptation difficulties might experience a degree of personal support and emotional satisfaction if other disaster victims were to socialise with them for a longer term.

#### **8.3.2.1 Knowledge Gained of Disaster Victims under the MNSC Directive 20**

Only 19 per cent of actors agreed that regulatory compliance will benefit the disaster victims in terms of knowledge development. Meanwhile, most of them (54 per cent) were unsure and 27 per cent perceived themselves as against the idea that regulatory compliance will benefit the disaster victims. Actors' contribution of views was illustrated in details below. Table 8.11 in Appendix 24, p.429 summarises response to the question of actors' perceived benefit of knowledge gained of disaster victims if included in the disaster victims' groups.

#### **D. Department (under district level)**

Two officers, one manager and one clerical staff were of the opinion that regulatory compliance will increase the knowledge of disaster victims under the MNSC Directive 20 because they could learn from the actors, for example as argued by one clerical staff, as shown in translated quotation in Appendix 23 (2.2.1), p.403 that:

*“When mixed together with actors their thinking could be further developed compared to when they are mixing only with their own society. They can always learn from actors”.*

Six clerical staff members were unsure because they had never handled disaster victims under the MNSC Directive 20. The rest said that the knowledge gained of disaster victims under the MNSC Directive 20 in disaster victims' group would depend on the nature of persistent difficulties. They reasoned that disaster victims who gave cooperation and were willing to know about the programme might improve, though this might be

difficult for disaster victims suffering depression and without formal education. They also argued that if the disaster victims under the MNSC Directive 20 are placed in disaster victims' group, they could be convinced to do their best and not feel concerned by other disaster victims' knowledge in the group. Four technical staff members were unsure because disaster victims could learn from each other but discouraged them in terms of competition. This was expressed by one technical staff, as shown in translated quotation in Appendix 23 (2.2.1), p.402 that:

*“Among themselves, they may feel they are lagging behind compared to other disaster victims in their communities. Thus they may be encouraged to try harder to catch up with each other. In disaster victims' group they could simply give up because they could not keep up with other disaster victims' progress. But if these disaster victims under resilience difficulties can be persuaded to do their best irrespective of other disaster victims' achievements, and they can comfortably learn side by side with other disaster victims and actors, then their knowledge could better improve in disaster victims' group compared to what they know before disaster strike”.*

Three officers and three clerical staff members disagreed that regulatory compliance would improve these disaster victims' knowledge because in regulatory compliance they were not interested in knowing guidelines or regulations. For the disaster victims they were just concerned with their demands. Also they reasoned that technical staff members are better equipped rather than clerical staff to manage these disaster victims' resilience difficulties as argued by one clerical staff, as shown in translated quotation in Appendix 23 (2.2.1), p.403 that:

*“Technical staff members are better trained to handle these disaster victims particularly in building regulations. They know what is required because they have been specially trained for the task. We clerical staff will handle them like other disaster victims that might not be suitable. Maybe it is better practically if the victim with resilience difficulties in the department level is handled by specialist actors in emergency housing”.*

#### **E. Department (special body appointed by the government)**

Only one technical staff agreed that regulatory compliance might improve disaster victims' knowledge slowly by mixing them with the actors. The technical staff argued, as shown in translated quotation in Appendix 23 (2.2.1), p.403 that:

*“This is a slow process but the disaster victims might do it if they want it to”.*

Three technical staff members and five clerical staff members in this department level were unsure of the ability of regulatory compliance to improve the knowledge of disaster victims. They claimed that the knowledge gained would not progress rapidly because actors would have difficulty in conveying instruction to them. They also said that clerical staff would always give preference to overall aspects of disaster victims' adaptation, thus neglecting specific needs from the disaster victims. In regulatory compliance technical staff could give the disaster victims the individual attention because they understand buildings and can answer the demands from disaster victims. These views are seen in the statement of one technical staff as argued, in translated quotation in Appendix 23 (2.2.1), p.403 that:

*“Their knowledge would not progress rapidly because clerical staff would have difficulties in trying to make disaster victims understand the essence of regulations. Clerical staff have to go back to technical staff for certain information about buildings and regulations. Most of technical staff can make direct contact and explain the real scenario in emergency housing and what to provide the victim”.*

Table 8.11 in Appendix 24, p.429 shows how the group of actors' perception of disaster victims' gained knowledge, resulted from regulatory compliance.

#### **8.3.2.2 Disaster Victims under the MNSC Directive 20, Social Development**

All actors interviewed either agreed (66 per cent) or had mixed views (34 per cent) on the benefits of regulatory compliance to the social development of disaster victims under the MNSC Directive 20 as shown in Table 8.12, Appendix 24, p.429. This was also considered as acceptance of disaster victims by actors in disaster victims' group. Actors' contribution of views was illustrated in details below.

#### **D. Department (under district level)**

The manager, four officers and four clerical staff members had a positive view of the ability of regulatory compliance to develop the social skills of disaster victims under the MNSC Directive 20 because regular interaction with actors should facilitate socially acceptable behaviour. As one manager and one clerical staff stressed, as shown in translated quotation in Appendix 23 (2.2.2), p.404 that:

*“The main way we can help our victim who we think has resilience difficulties is to improve his social skills. We can try to make him independent in handling himself, conscious of the groups around him, and know how to behave when interacting with other communities even outside disaster victims’ group”.*

*“The victim regarded as having mental resilience difficulties gets along superbly in communities. Socially, he is just like any other victim that needs to be part of communities”.*

However one officer, six clerical staff members and four technical staff members had mixed opinions because they had never handled disaster victims under the MNSC Directive 20. The other actors argued that social skills might improve if the recovered disaster victims could be encouraged to act as ‘role-models’ to other disaster victim under the MNSC Directive 20 and if actors were willing to assist in their development.

#### **E. Department (special body appointed by the government)**

The manager and five clerical staff members were agreed that regulatory compliance will improve the social skills of disaster victims. All four technical staff members in the department level believed that regulatory compliance would help disaster victims to improve their social skills if they tried to respond (e.g. attending, observing and attempting) to the authorities’ programmes and development offered to them. These are detailed in Table 8.12 in Appendix 24, p.429. They also hoped that such responsibility might be extended to social contacts with other disaster victim in the wider society, as suggested by the technical staff, who argued, as shown in translated quotation in Appendix 23 (2.2.2), p.404 that:

*“They will be able to develop their social skills. Recently we had a meeting in disaster victims’ group explaining our plan of recoveries. They (disaster victim) seem to get along fine with actors even though they have lots of difficulty understanding each other especially when it is the part of rules and regulations”.*

#### **8.3.2.3 The Emotional Development of Disaster Victim under the MNSC Directive 20**

During discussion with actors on the issue of the probable developmental benefit of disaster victim under the MNSC Directive 20 of regulatory compliance, only 25 actors interviewed were adjudged to have included emotional development in their discussions as shown in Table 8.13 in Appendix 24, p.429. 32 per cent of them were positive about the benefit of disaster victims’ emotional development under their supervision besides of other 28 per cent were unsure. 40 per cent of them disagreed about the benefit of emotional development will increase just to be included in the disaster victims’ group. They admitted that they do not have the skill to handle disaster victims’ emotional development. Actors’ contribution of views was illustrated in details below.

#### **D. Department (under district level)**

Two officers and two clerical staff members in the department level agreed that disaster victim under the MNSC Directive 20 would be more emotionally secure if they were placed in disaster victims’ group. Being able to adapt and mix with other disaster victims would increase their self-esteem. This is expressed by one officer, as shown in translated quotation in Appendix 23 (2.2.3), p.405 that:

*“Maybe initially disaster victims under resilience difficulties would feel humble, embarrassed and at times isolated when included in disaster victim’ groups. Once they feel they are being accepted by both other disaster victims and actors they will have confidence in themselves and will like disaster victim’ groups better”.*

The manager had reservations. He felt that at an earlier stage of recovery, these disaster victims would be less aware of their resilience difficulties, but at later stage of recovery they would be more conscious of it and keep requesting more. If the request sometimes did not meet on time it may cause emotional depression especially to the elder



age disaster victim. This might make regulatory compliance with the MNSC Directive 20 more difficult to achieve.

One officer and one technical staff disagreed about the idea that regulatory compliance would enhance emotional development of disaster victims. Two clerical staff members argued that disaster victims under the MNSC Directive 20 would be demoralised emotionally if placed in disaster victims' group due to their inability to emulate with other disaster peers, as shown in translated quotation in Appendix 23 (2.2.3), p.405 that:

*“When other disaster victims can, and they can’t because of age factors, they would be demoralised”.*

#### **E. Department (special body appointed by the government)**

None of this department level of actors was adjudged to have mentioned the emotional development of disaster victims in their discussions. Table 8.13 in Appendix 24, p.429 summarises response to the question of emotional benefit to the disaster victims.

### **8.3.3 Perceived Suitability of Regulations for Actors and Disaster Victims under the MNSC Directive 20**

During the time of this study, disaster victims were handled by different departmental levels based on the MNSC Directive 20 (see section 4.5.1, p.107, p.6) alongside other national legal framework in development processes and other international requirements. Preference of practical ability was discussed in section 8.4.7, p.264. Only 19 per cent of actors agreed that the programme introduced was suitable for actors and the disaster victims. Most of them, (75 per cent) however, perceived as unsure about the programme suitability. 6 per cent of them were disagreed about the programme suitability. Actors' contributions of views are illustrated in details below. Table 8.14 in Appendix 24, p.430 summarises response to the question of actors' perceived suitability of regulations for actors and disaster victims under the MNSC Directive 20.

#### **D. Department (under district level)**

Every actor in this department level expressed mixed opinions on the suitability of regulations for actors and disaster victims under the MNSC Directive 20. They believed some regulations are suitable, whilst others are not. Suitability of the regulations is also

conditional upon the types of resilience difficulties these disaster victims have. All actors perceived that regulations might be tougher in terms of decision making for actors at higher levels like managers because they have to make decisions but should be manageable for actors at lower level. But they agreed that most regulations related to non-religious demands could be suitable for actors.

**E. Department (special body appointed by the government)**

All technical staff members in the department level conceded that the standards of religious demands, that have to be handled by actors, may be too high for them. But regulations related to non-religious demand should be suitable for these disaster victims. One technical staff argued, as shown in translated quotation in Appendix 23 (2.3), p.407 that:

*“We feel that the religious section of regulation or programme is too demanding for our colleagues, but we have no choice because we must subscribe to the directives of the Prime Minister’s Department to handle according to these guidelines”.*

Table 8.14 in Appendix 24, p.430 summarises the response with over 50 per cent showing that they are uncertain about suitability of regulations for actors and disaster victims under the MNSC Directive 20.

**8.3.4 Perceived Effect of Regulatory Compliance on Actors’ Workload**

Actors interviewed were unanimous that regulatory compliance would increase their workload. For example one manager (under national level) observed, as shown in translated quotation in Appendix 23 (2.4), p.407 that:

*“If actors were to handle disaster victims, there would not be much increase in their everyday workload. But the official requirement is that the regulatory compliance progress of disaster victims needs to be accommodated under resilience difficulties, and this would definitely increase actors’ present workload. Actors also have to put in extra effort to control and handle disaster victims. They also have to give special attention to these disaster victims according to MNSC Directive 20 that might necessitate using different strategies to those usually employed”.*

The clerical staff reasoned that they would have to prepare extra work and compliance materials even if only one of these disaster victims under the MNSC Directive 20 is placed in their group. This would definitely mean extra work for them. One clerical staff (under national level) argued, as shown in translated quotation in Appendix 23 (2.4), p.407 that:

*“Presently, actors are required to go to the site and make presentation to the disaster victims and get their feedback. Then go back and amend and present again. It takes time and effort”.*

And there are also new practical concerns for different groups, as from one clerical staff (under national level) argued, as shown in translated quotation in Appendix 23 (2.4), p.407 that:

*“These disaster victims under resilience difficulties need special attention from group of actors. For example, if they got 8 kids, demand for an extra rooms or space. But in the MNSC Directive 20 guidelines stated that only 1 unit for a family, and then we have to back to the central and amend those things and definitely increase our workload”.*

One technical staff (under state level) said that regulatory compliance only gave him a slightly increased workload from his usual workload. He argued, as in Appendix 23 (2.4), p.407 that:

*“Actors handle as usual. When disaster victims are included in their groups, all these disaster victims’ needs would be sent to the technical staff for transcribing. Actors only have to mark the transcripts and try to fulfill their needs. Then compare with guidelines in the MNSC Directive 20 or other guidelines provided specific to that project. There will only be a slight increase because of our duties”.*

And one clerical staff (under district level) raised the point, as shown in translated quotation in Appendix 23 (2.4), p.408 that:

*“Actors have to give extra attention to the only victim with mental depression in the department level. Often with this victim, actors have to prepare adaptation materials that are totally different to*

*those we give the other disaster victims in the group. If we really want to stick to the regulations just imagine how much time and effort it might take”.*

Besides duties and responsibilities in the department level, clerical staff said that they would have to lavish extra attention on disaster victims under the MNSC Directive 20 to make up to disaster victims’ adaptation on the right track. This extra consideration would distract actors’ attention on the regulatory compliance because of human feelings and sympathy that might drag allotted time in providing emergency housing. Virtually, all actors had their own concerns to express. One technical staff (special body appointed by the government) argued, as shown in translated quotation in Appendix 23 (2.4), p.408 that:

*“As it is actors who are not only expected to handle regulations. They are also required to be involved in community’s activities, clerical work concerning the disaster victims in the group, and other appraisal activities at the district, state and sometimes at the national level. If disaster victims under resilience difficulties are also included in their groups, and the latest requirement is that every victim under resilience difficulties must have an individualised plan, then the actors would have a heart attack”.*

### **8.3.5 Perceived Effect of Regulatory Compliance on Victim**

Most of the actors (61 per cent) agreed that the MNSC Directive 20 will leave a positive effect on the disaster victims’ adaptation. Meanwhile, 15 per cent were unsure and 24 per cent perceived that regulatory compliance will leave a negative effect the adaptation of disaster victims. Actors’ contribution of views was illustrated in details below. Table 8.15 in Appendix 24, p.430 summarises response to the question of actors’ perceived effect of regulatory compliance on the disaster victims’ adaptation.

#### **D. Department (under district level)**

Two officers and three clerical staff members argued that regulatory compliance will have a negative effect on the resilience progress of disaster victims because actors would have to spend more time with every victim personally. One clerical staff acknowledged, as shown in translated quotation in Appendix 23 (2.5), p.409 that:

*“If these specific disaster victims have abnormal behaviour and like to disturb other disaster victims, then these disaster victims would keep their distance from them. If they don’t have such awkward behaviours, maybe they could accept them in their group”.*

Two clerical staff members had mixed views. They said that it might not have a negative effect if disaster victims included in disaster victims’ group were free from behavioural problems that would not distract other disaster victims’ adaptation. The clerical staff argued, as shown in translated quotation in Appendix 23 (2.5), p.409 that:

*“I am not sure because regulations and guidelines exist for a good reason and from the previous experience. In the scene of disaster it depends on the disaster victims behaviours whether they can adapt with other disaster victims or not and whether their demands are rational or not”.*

The manager, four technical staff members, three officers and five clerical staff members disagreed that regulatory compliance would have negative effects on disaster victims’ resilience progress because to them disaster victims are psychologically ‘normal’. In fact, they argued that by assisting other disaster victims in their adaptation, disaster victims’ knowledge in regulations could be further reinforced. They added that probable disturbances in the groups, because of the engagement of other disaster victims in disaster victims’ group, would not unduly affect disaster victims’ adaptation. One officer argued, as shown in translated quotation in Appendix 23 (2.5), p.409 that:

*“When disaster victims help other disaster victims under resilience difficulties, they increase their understanding of the regulation matter or concepts. This would enhance resilience progress rather than diminishing it”.*

#### **E. Department (special body appointed by the government)**

Two technical staff members agreed that regulatory compliance would have negative effects on disaster victims’ resilience progress because actors have to deal with special attention to other disaster victims and thus have to shorten their time spent with disaster victims in resilience difficulties. One technical staff argued, as shown in translated quotation in Appendix 23 (2.5), p.409 that:

*“This regulatory compliance concept will keep actors focus on their duties more towards providing accommodation that is already planned. At the same time they are responsible to hear from the disaster victims’ side too of what they need and what they don’t. Foremost, some of the actors may only cater for specific disaster victims needs rather than overall disaster victims”.*

On manager was undecided whether regulatory compliance might have an effect on disaster victims or not without any reason.

Five clerical staff members and three technical staff members in the department level disagreed that regulatory compliance of disaster victims would negatively affect disaster victims’ resilience progress because normal work would continue as usual. They also argued the desire of disaster victims not to be upstaged by other disaster victims would make them work harder, thus increasing their attainments. These are detailed in Table 8.15 in Appendix 24, p.430.

#### **8.3.6 Perceived Effect of Regulatory Compliance on Department Levels’ Performance**

Most of the actors at department level are required to attend the training programme many times a year related to disaster management and many others not only in disaster management. Then, all of these trainings, seminars and anything related to attendance towards knowledge attainment will be counted in order to get promoted and department level appraisal. Thus, half of actors (51 per cent) perceived themselves as agreed to the fact that regulatory compliance will negatively effects on department level’s performance due to increase of workload. 10 per cent were unsure besides of other actors 39 per cent) accepted regulatory compliance as not a problem to influence department level’s performance. Table 8.16 in Appendix 24, p.430 summarises response to the question of actors’ perception of the effect of regulatory compliance on department levels’ performance.

#### **D. Department (under district level)**

Five officers, four technical staff members and three clerical staff members said that regulatory compliance would affect the department levels’ performance because there are actors who were trained in emergency housing and disaster management but purposely had to ignore the fact that they had other responsibilities and commitments. One officer argued, as shown in translated quotation in Appendix 23 (2.6), p.411 that:

*“They know what to do with the regulations but ignore most of it in the name of other responsibilities and commitments”.*

The manager and three clerical staff members had reservations. They argued that it depends on the actors’ willingness to comply with regulations or ignore the regulations they are familiar with. The reason they gave was that they have other responsibilities and commitments. They are just the enforcers that follow orders from their superiors.

Four clerical staff members believed that regulatory compliance would not have any effect on their performance because regulatory compliance would make no difference to the department level’s performance.

#### **E. Department (special body appointed by the government)**

The manager, three technical staff members and four clerical staff members in the department level agreed that sticking to the regulation totally in emergency housing would lower the department levels’ performance because they had to deliver the project on time. Their main consideration was time. Sticking to the regulations required them to give extra attention to the disaster victims that may result in project delays.

One clerical staff undecided and one technical staff disagreed that regulatory compliance would have any effect on their performance because distraction of work responsibilities was part of their work. He quoted, as shown in translated quotation in Appendix 23 (2.6), p.411 that:

*“Regulatory compliance will definitely give us pressure and distract our concentration in disaster relief. But that is what we do. I don’t see any problem there”.*

Table 8.16 in Appendix 24, p.430 shows the group of actors’ perception regarding effects on department levels’ performance.

#### **8.3.6.1 Suggestions about Alternative Methods of Evaluating Department Levels’ Performance if they Practice Regulatory Compliance**

Actors were requested to suggest alternative methods for evaluating performance of department level if they were to practice regulatory compliance. Of the actors 22 were

unable or reluctant to make any suggestion. Those who did so offered the following recommendations:

1. Valuation in training programme should also be part of overall individual appraisal (41 per cent of actors).
2. It was suggested that the valuation on behalf of the department should be done by the right person who is really specialised in emergency housing (35 per cent of actors). They are the key indicator of the success of regulatory compliance. One actor suggested, as shown in translated quotation in Appendix 23 (2.6.1), p.411 that:

*“Evaluating the regulatory compliance progress of actors is not the whole picture of what we have done. If the government wants to make valuations they should start with appointing an officer or put more specialist staff in emergency housing. Valuation can be started with calculating their performance. Some of us are involved in this department on behalf of the department and don’t really understand what emergency housing is all about”.*

3. Actors recommended that credits be given to the department level with good regulatory compliance practice (24 per cent of actors). For example does the department level have a committee to determine the regulatory compliance plan for each project? Does the committee represent all interested parties in the regulatory compliance of each project? Have these actors been involved in social and extra-curricular activities organised by the department level and what is the extent of their involvement? If the answers are affirmative, then the department level should be recognised for these actions. Such proposals were made by one technical staff member (under state level), as shown in translated quotation in Appendix 23 (2.6.1), p.411 that:

*“The success of actors towards regulatory compliance should not be based solely on their regulatory compliances application in the line of duty. It should also take into account these actors achievements in other fields. For example, their involvement in representing the department level in cultural and sport activities at district, state and national level. Actors in this department level are heavily involved in these activities. This should also be referred to when assessing the regulatory compliance success of these actors, and credit is given to the department level for this achievement”.*



### **8.3.7 Types of Regulations Favoured by Actors for Regulatory Compliance**

Actors were asked to nominate types of regulations that they perceived as suitable for regulatory compliance in the process of providing emergency housing. However, only three types of regulations (commercial planning and building codes; MNSC Directive 20; and the international standards) were selected. These three regulations are the most prominent sources in disaster situations in Malaysia. Most of the actors (53 per cent) favoured the MNSC Directive 20 being used in disaster situations in Malaysia. 39 per cent suggested that the commercial planning and building codes are the most suitable even in disaster situations. However, only 8 per cent prefer to use international standards as guidance in disaster situations. There were two reasons given by actors for their nominations in every type of regulation:

1. Actors, who favoured the present planning and building codes that applied to all authorities in Malaysia in developing commercial housing schemes because they were familiar with it. The second reason was that they assumed that actors have the required skills and technique to handle these regulations;
2. Actors, who nominated the regulations that, are flexible enough to suit a disaster situation at site under the MNSC Directive 20. At the scene of a disaster there were unpredictable scenarios and disaster victims should be provided with available resources;
3. Actors, who favoured the international standards provided by international bodies, like the SPHERE, UNHCR and OXFAM in disaster actions, because they are practically proven and internationally recognised.

Actors' contribution of views was illustrated in details below. Table 8.17 in Appendix 24, p.430 summarises response to the question of actors' perceived types of regulations favoured by actors for regulatory compliance implementation.

#### **A. Department (under national level) that had tried direct contact with disaster victims**

The manager, two technical staff members and three clerical staff members were most favoured with the present planning and building codes. One clerical staff and one technical staff nominated the regulations under the MNSC Directive 20. Meanwhile two clerical staff

members said that the international standards were the most suitable for regulatory compliance. Actors who were favoured the regulations under the MNSC Directive 20 and the international standards rated regulations in the present national planning and building codes as being the least suitable for regulatory compliance implementation.

**B. Department (under national level)**

Three technical staff members and seven clerical staff members rated regulations in the present national planning and building codes as being suitable for regulatory compliance despite rated regulations under the MNSC Directive 20 and the international standards as being equally unsuitable. For example one clerical staff argued, as shown in translated quotation in Appendix 23 (2.7), p.411 that:

*“I prefer the regulations in the present national planning and building codes because I’m already familiar with it. They assumed that actors have the required skills and technique to handle these regulations. As for regulations under the MNSC Directive 20 and the international standard, they are not my concern because I never work with that”.*

Three technical staff members and two clerical staff members rated regulations under the MNSC Directive 20 as being most suitable, followed by the international standards. Regulations in the present national planning and building codes were rated third, by these actors in terms of suitability.

**C. Department (under state level)**

One technical staff member chose regulations in the present national planning and building codes as being most suitable for regulatory compliance.

The manager, six technical staff members and five clerical staff members nominated regulations under the MNSC Directive 20 as their favourite for regulatory compliance. They argued that regulations in the present national planning and building codes were deemed to be the most unsuitable.

Three clerical staff members chose the international standards as being the most suitable because they were practically proven and internationally recognised. These actors also rated regulations in the present national planning and building codes as unsuitable in providing emergency housing.

#### **D. Department (under district level)**

Five clerical staff members nominated regulations in the present national planning and building codes as being suitable for regulatory compliance in this department level because they were familiar with them and with the availability of those facilities. Unfortunately they did not have the facilities for regulations under the MNSC Directive 20 and the international standards. These actors also rated equally the unsuitability of both regulations for regulatory compliance.

The manager, three officers and four clerical staff members chose regulations under the MNSC Directive 20 as being the most suitable and regulations in the present national planning and building codes as the least suitable. One clerical staff offered the comment, as shown in translated quotation in Appendix 23 (2.7), p.412 that:

*“Currently there are regulations under the MNSC Directive 20 that had succeeded in this regulatory compliance and projects delivered with fewer complaints. I haven't heard of international standards, but there are efforts towards the implementations. As for regulations in present planning and building codes, it will be a great achievement if it is accomplished towards regulatory compliance”.*

Two clerical staff members and two technical staff members claimed that all three types of regulations are suitable for regulatory compliance in emergency housing. One clerical staff declined to nominate. Two technical staff members said that all three types are unsuitable for regulatory compliance.

#### **E. Department (special body appointed by the government)**

The manager in this department level favoured the present planning and building codes because he was familiar with it. The manager argued, as shown in translated quotation in Appendix 23 (2.7), p.412 that:

*“I'm in this line for quite sometime and my main reference is planning and building codes. But there's no problem for me to follow any instruction from above”.*

Four technical staff members in this department level nominated regulations under the MNSC Directive 20 as being the most suitable followed by the international standard.

Third were regulations in the present national planning and building codes. One technical staff was proud to report, as shown in translated quotation in Appendix 23 (2.7), p.412 that:

*“We have proof that regulations under the MNSC Directive 20 could be achieved. No major complaints from the disaster victims”.*

Four clerical staff members said that all the three types are unsuitable for regulatory compliance because it all depends on the time scale and resources available at a disaster site or emergency housing site. One clerical staff was unsure. Table 8.17 in Appendix 24, p.430 summarises responses to the question about the most favoured regulation in providing emergency housing.

#### **8.4 Conative Component of Attitude**

The conative component of attitudes is again strongly shaped by the previous amount of personal involvement an actor has had in implementing the MNSC Directive 20. Actors are undoubtedly assumed (about their colleagues and disaster victims) that an individual with a positive attitude to an object, should engage behaviour that ultimately complies with the MNSC Directive 20. Those with negative attitudes (negative towards the issue) should move away from it. A thorough analysis had been made to find out patterns of relationships between levels of action from national to local (district). As a result, there were typical answers at the national and state levels. Therefore analyses of perception at the national and state level by the actors are shown in the cognitive component of attitudes at the beginning of this chapter. Only answers at the district level and the department appointed by the government are highlighted in this section and discussed in this chapter. However the detailed analyses in actors' conative components of attitudes at national and state level are shown in Appendix 25, p.429.

##### **8.4.1 Perceived Actors Support for Regulatory Compliance Implementation**

Only 24 per cent of actors agreed to support regulatory compliance implementation. Meanwhile, 30 per cent were unsure but almost half of them (46 per cent) were against the introduction of regulatory compliance implementation. Table 8.18 in Appendix 24, p.431

summarises response to the question of actors' perceived support for regulatory compliance implementation.

**D. Department (under district level)**

Three clerical staff members were willing to support regulatory compliance implementation on humanitarian grounds. They argued that regulatory compliance should be put on trial first in order to determine its success or failure. One general comment from one clerical staff, as shown in translated quotation in Appendix 23 (3.1), p.414 that:

*“Based on the department level’s current conditions, maybe at the earlier stage actors will support this MNSC Directive 20 for these disaster victims under resilience difficulties because most of the work can be monitored. As for later phase of recovery, I don't think they will support it because the work is geared toward accommodating facilities with a lot of pressure from surroundings”.*

All five officers had mixed views on actors' willingness to support regulatory compliance. Actors might be willing to support regulatory compliance if: (1) the managers in this department level totally support the programme and (2) it involves in recovery plan earlier phase only, thus the work can be monitored. Actors at a later recovery phase at site would be so preoccupied with the job to accommodate facilities for the disaster victims.

The manager believed that actors in his department level would be opposed to regulatory compliance because it would be too demanding on their working responsibilities. He argued that actors are faced with enough troubles concerning disaster victims' adaptation, thus they are not ready for any additional responsibilities. Four technical staff members and six clerical staff members opposed the programme implementation because it would interfere with the normal adaptation and working process. They were not trained to handle disaster victims under the MNSC Directive 20 and this department level was inappropriately equipped. Regulatory compliance would put too much pressure on actors. One clerical staff declined to comment.

**E. Department (special body appointed by the government)**

One technical staff was willing to support regulatory compliance implementation without any reason.

The manager, one clerical and three technical staff members believed that actors in this department level would be reluctant to support regulatory compliance because of their inability to communicate with the disaster victims. They have to be prepared for the risk of dragging out the time frame for providing accommodation to the disaster victims. These are detailed in Table 8.18 in Appendix 24, p.431. One technical staff member commented, as shown in translated quotation in Appendix 23 (3.1), p.414 that:

*“Very few will support regulatory compliance because of their inability to communicate with disaster victims, and also it will increase the actors’ burden”.*

Four clerical staff members refused to comment.

#### **8.4.2 Perceived Ability of Regulatory Compliance on Promoting a ‘Caring Feeling’ and Acceptance of Disaster Victims under the MNSC Directive 20 by the Actors**

Actors either had mixed opinions (53 per cent) or agreed (47 per cent) that regulatory compliance would promote a ‘caring feeling’ and acceptance of disaster victims under the MNSC Directive 20 as shown in Table 8.19 in Appendix 24, p.431. Actors’ contribution of views was illustrated in details below. Three actors argued that ‘caring feeling’ and acceptance could be encouraged even without regulatory compliance.

#### **D. Department (under district level)**

Three officers, two technical staff members and five clerical staff members in the department level were confident that regulatory compliance would help to promote acceptance and a ‘caring feeling’ in actors. They reasoned that actual experience of interacting with disaster victims would make actors more aware of disaster victims’ difficulties, thus making them more sympathetic.

The manager, one technical staff, two officers and five clerical staff members who had mixed views claimed that for some actors regulatory compliance might make them more accepting and caring of victims, but some will be tempted to ignore these disaster victims. This ‘caring feeling’ and acceptance of disaster victims under the MNSC Directive 20 would also depend on actors’ acceptance of disaster victims in their groups. If actors were positive towards regulatory compliance, then their colleagues would probably reflect

that attitude too. If actors are negative then the chances were that their colleagues would reject disaster victims in the group. The manager argued, as shown in translated quotation in Appendix 23 (3.2), p.415 that:

*“There would be mixed acceptance by actors towards disaster victims under resilience difficulties. There would be one section of actors who could accept disaster victims under resilience difficulties, make friends with them, help them, and realise how lucky they are. But there is also a section of actors who would discriminate and ignore them”.*

One technical staff argued that ‘caring feeling’ and acceptance could be encouraged even under out regulatory compliance.

**E. Department (special body appointed by the government)**

Three clerical staff members and two technical staff members in the department level agreed that regulatory compliance would promote acceptance and ‘caring feeling’ in actors towards disaster victims, due to better understanding of these disaster victims’ difficulties. One technical staff member argued, as shown in translated quotation in Appendix 23 (3.2), p.416 that:

*“Of course government will propose the good things to the public. This concept of regulatory compliance is actually to protect disaster victims’ rights and get back what they had lost. I support this caring feeling and acceptance between actors and disaster victims”.*

One clerical staff and two technical staff members had reservations. They argued in one aspect that it might make actors more caring and accepting due to a better understanding of these disaster victims’ problems. But they were also worried that disaster victims would be more isolated and segregated because of their inability to articulate their thoughts to actors. Table 8.19 in Appendix 24, p 431 summarises the response with 50 per cent showing that they are uncertain.

One manager and one clerical staff argued that ‘caring feeling’ and acceptance could be encouraged even without regulatory compliance.

### **8.4.3 Perceived Willingness of Actors to Attend In-Service Training in Emergency Housing**

Only 30 per cent of actors were willing to attend in-service training in disaster management and emergency housing. 25 per cent of them were undecided. Obviously, almost half (45 per cent) of actors interviewed were unwilling to attend in-service training in disaster management and emergency housing. Actors' contribution of views was illustrated in details below. Table 8.20 in Appendix 24, p.431 summarises response to the question of actors' perception regarding willingness of actors to attend in-service training in disaster management and emergency housing.

#### **D. Department (under district level)**

Two officers and seven clerical staff members said that they were willing to attend in-service training to learn new working skills. One officer expressed the likelihood of acceptance of further training by actors, as shown in translated quotation in Appendix 23 (3.3), p.417 that:

*“There are actors who would be interested to attend such courses. First thing to do is give them some information on what regulatory is all about. For example when I discussed about this MNSC Directive 20, there were many actors who came over to see what regulatory compliance is all about, and they asked a lot of questions. That shows that clerical staff are interested in regulatory compliance too”.*

One officer and four technical staff members expressed mixed opinions. They argued that actors might be willing to attend the in-service training if the length of the course were shortened and if appropriate information on regulatory compliance were given to all of the actors. They also felt that very few actors were interested in handling disaster victims without formal education.

The manager and two officers claimed that actors in his department level were unwilling to attend in-service training because in the past they were not receptive to attending such training. Three clerical staff members were reluctant to attend in-service training because they had been handling disaster victims for too long and were not interested in changing their ways. Family commitments were also cited as reasons for not wanting to attend in-service training.



#### **E. Department (special body appointed by the government)**

Three clerical staff members were willing to attend training in emergency housing in order to diversify their working abilities. One clerical staff argued, as shown in translated quotation in Appendix 23 (3.3), p.417 that:

*“Not a problem for me, because that is the way to get more information about this programme”.*

Two technical staff members who were unsure agreed that actors might be willing to attend in-service training if the Prime Minister’s Department directed them. Actors might also be interested in emergency housing training if they were bored with the routine of handling disaster victims and might want to try something completely different.

The manager, two clerical staff members and two technical staff members in the department level had the perception that actors would be reluctant to attend in-service training in emergency housing. One of these technical staff believed that unless actors have family relations with the disaster victims, they would not be interested in this programme. Actors’ unwillingness, according to these technical staff members, was also due to family commitments. Worthy of note is the comment from the technical staff that working at this department may be chosen for personal or family reasons. Table 8.20 in Appendix 24, p.431 summarises response to the question of actor’s willingness to attend in-service training. One technical staff argued, as shown in translated quotation in Appendix 23 (3.3), p.417 that:

*“I volunteered to handle this department level because of I have relatives involved in the MNSC Directive 20. Hopefully by working in this department level, I could help them”.*

#### **8.4.4 Actor Perceptions of the Conditions to Accept Regulatory Compliance**

Actors were asked to express their views towards the issue above. Actor responses were gathered generally into three broad categories based on assumed interpretative similarities during data analysis. Wherever appropriate, these categories were sub-divided further into sections. Table 8.21 in Appendix 24, p.431 shows the range of conditions for accepting regulatory compliance as proposed by the 71 actors interviewed, 5 actors’ from national level declined to comment, some of them gave more than one answer (in the text below their responses are expressed in percentage form).

Actors interviewed said that they would accept regulatory compliance under the MNSC Directive 20 in their groups if they were directed to do so by the Prime Minister's Department (46 per cent), but there were exceptions. The manager (under national level) said that actors involved in the department had agreed to accept the selected disaster victims under any directives or the Prime Minister's Department because they wanted to try. This view was shared by the technical staff (under state level). The clerical staff (under national level) had also accepted it. The clerical staff (under district level) claimed that actors involved in handling these victims would actually readily accept their presence in the disaster site or groups. The second condition was that disaster victims under the MNSC Directive 20, placed in disaster victims' group, should have certain abilities. These disaster victims must have acquired certain prerequisite skills (15 per cent), for example, the ability to handle themselves, mastery of the use of at least medical responses and fluency in communication. Disaster victims under the MNSC Directive 20 must be able to behave themselves in disaster victims' group (25 per cent). This condition was put forward mainly by actors under national level and under district level. But there were also actors who had the perception that clerical staff would not accept disaster victims if they did not have behavioural problems due to poor knowledge of regulations (6.6 per cent). The third condition made was that only non-religious regulations are accepted (9.2 per cent). One technical staff (under national level) argued, as shown in translated quotation in Appendix 23 (3.4), p.418 that:

*"There are actors who visit our group regularly, who would accept the disaster victims into their groups if these disaster victims can self-handle, especially groups involving non-religious regulations. Actors not only interested in religious matter but also races and cultures that are very sensitive".*

#### **8.4.5 Barriers towards the Implementation of Regulatory Compliance**

Actors were asked to state the barriers that existed in disaster department levels that could hinder regulatory compliance implementation. The barriers identified are listed in Table 8.22 in Appendix 24, p.432 and consists of nine general categories.

The highest percentage (19 per cent) for a specific barrier was actors not being trained to handle disaster victims under the MNSC Directive 20. However, several actors under national level and district level considered that actors only know their specific

knowledge and were not skilled in many different areas. Thus, they can only do their work (4.1 per cent). The second highest barrier cited was related to the high capacity of emergency housing population (16.2 per cent). A third barrier was the lack of working resource and materials (10.7 per cent) and fourthly, was the unwillingness of actors to accept disaster victims under the MNSC Directive 20 in their groups (8.3 per cent). A Fifth barrier was the inadequate number of technical staff available on site (7.2 per cent).

A lack in provision of emergency housing (6.2 per cent) was closely related to the high capacity of the population that was also blamed for the failure in the internal Mechanism of Disaster Management in Malaysia. This internal system was also perceived as a barrier by actors interviewed (2.1 per cent). The situation was even worse with the involvement of international communities (2.1 per cent). Lack of information on regulatory compliance made actors wary of its implementation (4.8 per cent). Actors were also wary of regulatory compliance due to training programme appraisal (2.1 per cent).

Besides actors' negative attitudes to regulatory compliance, negative attitudes of the department levels' managers (3.4 per cent), disaster victims (2.4 per cent) and disaster victims' relatives (3.8 per cent) were also cited as barriers to its implementation. Disaster victims' behaviour (1.7 per cent) and disaster victims without formal education (3.8 per cent) were perceived as barriers by actors under national level and under district level.

Other barriers cited by the actors interviewed were the unwillingness of actors to relinquish their responsibilities due to professional interest (0.3 per cent), other responsibilities not related to working (0.5 per cent) and unwillingness of disaster victims under the MNSC Directive 20 themselves to be included in disaster victims' group (1.3 per cent).

#### **8.4.6 Changes Suggested by Actors Prior to Regulatory Compliance Implementation in Disaster Department Levels**

Actors were asked to propose changes they would like to see at the department level prior to regulatory compliance implementation. Changes suggested were closely related to the barriers given in Table 8.22 in Appendix 24, p.432. Changes suggested are listed in Table 8.23 in Appendix 24, p.433 and grouped into five general categories.

The main change advocated by actors interviewed was the retraining and training of actors (35.6 per cent). The manager (district) argued that if actors have the confidence to

handle disaster victims under the MNSC Directive 20 in disaster victims' group, then they will adapt well to regulatory compliance implementation. Retraining in the emergency housing programme would help them gain this confidence. Actors recommended that actors, especially technical staff involved in emergency housing, should be given continuous training at national, district or state level. By establishing training centers at these levels, actors could be called for training several times in a year. This would address some of the issues regarding actors' family commitments that were quoted by many actors as reasons for their reluctance to attend retraining. Besides retraining, actors also recommended that inclusion of disaster victims under the MNSC Directive 20 be made part of basic actor training programmes (4.1 per cent). This would prepare future actors mentally to accept disaster victims under the MNSC Directive 20 in their groups.

Actors also suggested that department levels should be informed about the Prime Minister's Department intention to introduce regulatory compliance in providing emergency housing (28.1 per cent). This would be more effective if the Prime Minister's Department, through the state department, was willing to allocate officers well versed in the programme and its implementation, to disseminate regulatory compliance information to all department levels.

More emergency housing units are required to be built because regulatory compliance requires the reduction of present number of disaster victims per unit according to MNSC Directive 20 (11 per cent). Building more emergency housing requires a system of administration that is clear and focused towards regulatory compliance (4.8 per cent). Actors also suggested that the creation of working assistant posts in department levels that are practicing regulatory compliance (11 per cent). This would help to reduce actors' workloads.

Other than suggesting a better system of administration, two actors (under national level) recommended that actors should spend more time with the disaster victims (1.4 per cent). This would give actors more time to concentrate on disaster victims' adaptation difficulties under the MNSC Directive 20. Two actors from this department level suggested that the disaster victims who are interested to participate must volunteer themselves (0.7 per cent).

One technical staff (under national level) suggested that every district office in the state level should have one officer in charge of its emergency housing programme (1.4 per

cent). This officer could act as ‘trouble-shooter’ for actors with problems in their regulatory compliance programme. Two clerical staff members (under district level) suggested that the formation of a special committee at the state level in order to continuously monitor the regulatory compliance programme in disaster department levels (0.7 per cent). This committee would consist of experts in various fields and provide advice on regulatory compliance implementation if required. One technical staff (special body appointed by the government) said that the officer in charge of the emergency housing programme should be someone with an emergency housing background (1.4 per cent). This would make him/her more considerate and committed.

#### **8.4.7 Strategies to Encourage Actors to Accept Regulatory Compliance under the MNSC Directive 20**

The strategies listed in Table 8.24 in Appendix 24, p.434 were recommended by actors to encourage them to accept regulatory compliance. These strategies were gathered into six general categories.

Actors suggested that they should be given more encouragement for their efforts working in disaster management and emergency housing. There were generally four types of encouragement recommended. The first was the personal incentives, particularly financial reward (17 per cent), and actors who were involved in regulatory compliance should be made part of their yearly appraisal of working performance (5.2 per cent). It was also recommended that actors nominated for the regulatory compliance programme should be sent for overseas training to a country that has practised regulatory compliance successfully (1.7 per cent). Another recommendation was that actors involved in the regulatory compliance programme should be given the chance to upgrade their academic qualifications (1.3 per cent).

The second form of encouragement mentioned was that actors should be provided with all appropriate working materials required, depending on the types of working condition (15 per cent). These actors argued that this would save actors time and effort in providing emergency housing/site administration for disaster victims under the MNSC Directive 20.

The third type of encouragement suggested was the availability of professional working support. Three forms were mentioned. The first was the support from technical

staff (16 per cent). Actors argued that they should be given free access to consult and seek advice from technical staff and professional whenever they faced difficulties over the compliance matters. Moral support by managers was also mentioned by the actors interviewed (5.1 per cent). Managers should make every effort to help actors to resolve their difficulties in regulatory compliance. Actors (under district level) and (special body appointed by the government) also felt that it was also essential to get support from other actors involved in emergency housing (1.3 per cent).

The fourth form of encouragement recommended was the reduction of actors' workloads. Actors advocated that disaster victims' group responsibilities should be reduced. This would give actors more time to address disaster victims' resilience difficulties under the MNSC Directive 20 and reduce other actors' duties, for example, entertaining disaster victims'. In order to limit actors' workloads, actors' suggestions are:

1. Reduce the group population so that fewer disaster victims sharing the same facilities at the same time (20.4 per cent);
2. Restriction of regulations (2.9 per cent);
3. Include disaster victims with resilience difficulties under the MNSC Directive 20 in low income group and get benefit from other national programme (2.1 per cent);
4. Reduce actors working periods and non-working responsibilities (6 per cent);
5. Involve different community, place in a different group (0.4 per cent).

Besides encouragement, actors interviewed said that actors could be encouraged to try full regulatory compliance if the Prime Minister's Department, through the State and District Department, could show examples of a regulatory compliance programme that actually works (4.2 per cent). They stressed that apart from knowing very little about regulatory compliance in theory, the majority of actors had never seen full regulatory compliance working in action.

Three actors (under national level) and (special body appointed by the government) also recommended that actors who had been recognised by the Prime Minister's Department as 'excellent' actors should be involved in emergency housing programme (0.9 per cent). As officially recognised excellent practitioners, they would be likely to possess the right credentials to make regulatory compliance work.

## **8.5 Conclusion**

The actors interviewed generally admitted that they know very little about the regulatory compliance implementation to the MNSC Directive 20 proposed by the Prime Minister's Department. This lack of knowledge about regulatory compliance is due to lack of information about regulatory compliance given to departments at the national, state or district level.

### **A. Cognitive**

Only actors who were involved in the disaster site activities and were familiar with the information sent it onto their departments. Regulatory compliance with the programme is rarely discussed within the departments either formally or informally especially among technical staff and managers. The managers who were directly involved with the disaster victims had positive attitudes towards the implementation of regulatory compliance, compared to the managers who were doing more administration work. Only half of the overall actors involved in the interviews understood with rationale of regulatory compliance implementation by the Prime Minister's Department.

However, actors claimed that all departments were already applying rules and regulations (other than the MNSC Directive 20) related to their scope of works. The majority of actors interviewed said they had never been trained to handle disaster victims and to understand regulatory compliance during their pre-service training. Some of them were familiar with regulatory compliance as they attended formal training. They also admitted that they never expected to be involved in any way at all in these disaster victims' adaptations. There was no doubt that the actors interviewed were anxious about regulatory compliance. Actors were interested to know about their working environments, as most of them were familiar with the term used in the disaster scene (i.e. disaster victims, emergency housing and regulatory compliance) and discussed it with their colleagues.

Generally, actors felt they did not have the required skills to handle disaster victims if included in their group and this limited their ability to implement full regulatory compliance. Thus, they had the perception that handling disaster victims and complying with the programme required different skills.

## B. Affective

The majority of actors interviewed agreed that disaster victims have the rights to regulatory compliance due to equal rights and socialisation opportunities, but they also expressed their reservations about the benefit of regulatory compliance for these disaster victims. They accepted disaster victims in their groups, but they had reservation about the issue. They felt that disaster victims who are capable (mentally, socially and emotionally) and can behave themselves in disaster victims' group, and can cope with the rigors of resilient difficulties may get involved in the process of decisions making.

However, they felt if these conditions were not fulfilled, disaster victims would not be able to get benefit from regulatory compliance. Actors agreed that the involvement of disaster victims in disaster victims' groups would increase their knowledge. They were not sure about this with regard to social development, nor agreed that their emotional development would recover unless handed over to specialists. At the same time this action will promote human resource training to strengthen disaster preparedness for effective response (HFA Priorities) from within the community itself and not only from the authorities. Even so, the current MNSC Directive 20 is not perfect, and the actors were unsure about the suitability of the programmes, because they felt that their daily workload still increased from time to time. And while the programme was suitable and practical for their departments, it was less so to the actors and disaster victims themselves. Regulatory compliance would give a benefit to the department related to the scene of emergency housing and was suitable to be implemented.

However the implementation is not effective at all levels of the National Disaster Management Mechanism and is not tailored for them and the disaster victims individually. In addition, their workload will definitely increase if the disaster victims become involved in the process of decision making. They suggested that it is fair if their contribution should also be part of an overall individual appraisal (in their department), and any valuation of regulatory compliance accomplishments should be done by the right people who are really specialised in emergency housing; their contribution should get attention or recognition. For them this MNSC Directive 20 did not contribute towards the benefit of the disaster victims or them individually. However this programme did give them proper guidelines and increased their department performance.



They favoured working with the MNSC Directive 20 compared to other rules and regulations (national building codes and international standards) at the scene of a disaster because the programme is a combination of both international and local requirements in providing emergency housing.

### C. Conative

Actors also expressed the views that even though regulatory compliance could become a risk when getting the disaster victims involved, it does have the potential to make actors more 'caring' towards them. Regulatory compliance would make actors more aware of the difficulties that disaster victims encounter in everyday activities as the result of their resilience difficulties. This would shorten, considerably, the social distance between actors and disaster victims. But they also felt this could only be achieved if actors are active in promoting the 'caring' attitudes of disaster victims.

At the present stage, actors admitted that they are unable to fully support the MNSC Directive 20 implementation. The actors interviewed put forward the viewpoint that there are currently too many barriers present at department levels to make regulatory compliance implementation straightforward. They listed nine categories of barrier or obstacle (see section 8.4.5, p.268) that need to be overcome if regulatory compliance is to be given a chance to succeed in Malaysia. The main obstacle being actors are not trained in disaster management. They suggested the main changes (see section 8.4.6, p.269) (see also section 10.2.1, p.300) that the actors hope to see is further training provided for them.

However at the present stage, they are unwilling to attend in service training. The findings showed that actors would not accept regulatory compliance voluntarily and attend in service training unless there are some changes in working with incentives, while hoping that their contribution will affect their individual annual appraisal. During the interviews the actors also expressed their ideas on what actions the Prime Minister's Department (due to regulatory compliance with the MNSC Directive 20 will be accepted by the actors mainly if directed by the Prime Minister's Department-see section 8.4.4, p.267) might take to encourage actors to accept regulatory compliance (see section 8.4.7, p.271). Not only that, in order to make sure the programme was successful, a proportion of manpower working at disaster scenes, and resources provided, should be equal to the amount of time dedicated to disaster victims.

## CHAPTER 9

### Discussion and Conclusion

“Universities play a major role in the planning and implementation efforts since all these efforts require a major scientific base whereby the proper information and the uncertainties associated with disaster impact need to be fully understood before the preparedness plan can be translated into policy and regulatory measures”.

(Ahmad, 2007: 2)

#### 9.1 Introduction

This chapter discusses the findings of this thesis guided by the answers to the broad questions about the concept of regulatory compliance as currently held in Malaysia in order to achieve the aims as discussed in the Chapter 5 and as listed below:

1. What are Malaysian actors' attitudes towards regulatory compliance implementation?
2. What are Malaysian actors' understandings of regulatory compliance?
3. What are the actors' perceived rationales of regulatory compliance implementation?

The discussion also highlights variables influencing actors' general attitudes as a result of broadly centred thematic areas as discussed in section 6.5.4, p.178.

##### 9.1.1 Actors' Attitudes to Regulatory Compliance

Research outside the Malaysian context shows that crisis in public sectors, failure in policy implementation and crisis management, (Gray *et al.* 1998) the compliance to which is usually far from complete, massively jeopardises the effectiveness of management (Sutinen *et al.* 1990). The attitude dilemma is affected by the environment (Allport, 1971) and easily influenced by the current failure of the social system (Dynes, 1993). This research shows that actors have a high level of negativity towards government intention to implement full regulatory compliance. This particular finding is consistent with the results of research undertaken by Shaluf *et al.* (2003b) which showed that actors had negative attitudes towards the MNSC Directive 20. However this research was done with the actors

in the private service sectors as its subjects. Meanwhile, in the public service sectors, the research showed that the actors generally possessed a good basic knowledge in their own field and a positive attitude towards their daily routine (Aini *et al.* 2006).

In conclusion, the actors in public service sectors involved in disaster management are knowledgeable in their area but not about the MNSC Directive 20, hence they had a negative attitude towards its implementation because they are usually not familiar with the MNSC Directive 20. If this is a rather disappointing finding for the advocacy of regulatory compliance, it is, nevertheless, a position that administrative planners will have to look into with great consideration. This finding recalled the statement by scholars concerning improper standards and guidelines utilisation that may affect the overall support from regulators (Corsellis *et al.* 2005); negative perceptions from actors towards planning and acting on rehabilitation/reconstruction programmes due to difficulties in agencies coordination (Barakat, 2003); and no guarantee that comprehensive planning will be followed by good managing translation, if information regarding the programme be kept only as a plan for implementation (Quarantelli *et al.* 1977; Quarantelli, 1993).

Actors' perspectives on the implementation of regulatory compliance reveal their actual commitment, and explain the failures of regulatory compliance. This research shows that actors have a range of beliefs, opinions and hopes for regulatory compliance irrespective of their Professional Status. It also indicates that there exists amongst actors every kind of attitude to regulatory compliance imaginable. The interviews showed that actors were, to their credit, genuinely concerned about the effect of regulatory compliance both to the disaster victims and their colleagues. They argue that there are currently too many barriers present in department levels to make regulatory compliance implementation straightforward. There are nine barriers that have been identified that could have contributed to actors having negative general attitudes towards regulatory compliance. The office of the Prime Minister's Department together with the support of disaster community should look into this matter as a challenge and not simply as a barrier, as discussed below.

#### **A. Lack of Information**

Lack of knowledge in relation to regulatory compliance among the actors is due to lack of information about regulatory compliance given to departments at the national, state or district levels. The small number and uneven circulation of information about the MNSC

Directive 20 and regulatory compliance was among one of the reasons that contributed to lack of understanding among the actors. The national housing policy section has a strong normative function bringing knowledge and expertise in the housing sector development and policy responses in various thematic areas as mentioned by the UN-HABITAT (1999) although in this research, the findings show that the distribution of information regarding the MNSC Directive 20 in respect to housing provided was not adequately addressed. One consequence is that those involved in disaster response receive very little information about implementation because no one really knows what they are meant to do.

This lack of information was also cited as the reason why actors in general are unwilling to support regulatory compliance and also why they are unwilling to attend in-service training. This finding is consistent with Parr (1970), Paton (1999) and Johnston *et al.* (2001) who agreed that it is important to provide sufficient information and resources in order to formulate and adopt comprehensive mitigation strategies. A number of actors were willing to support regulatory compliance if they knew more about it. Concerns about actors' lack of knowledge was highlighted in this research as several actors interviewed claimed that the only document that they had come across concerning regulatory compliance was the questionnaire from the present research. However, as far as Malaysia is concerned, there is no real problem surrounding early warning and disaster information due to the fact that the Malaysian Centre of Remote Sensing (MACRES) has established a National Disaster and Information Management (NADDI). This action is consistent with the recommendation made by O'Keefe *et al.* (2006) that relevant agencies supposedly are active in sharing and expanding knowledge and information.

## **B. Actors not trained to handle Disaster Victims**

Malaysia is still on its way in investing more capital in human resources. Studies indicate that developed countries observe lower casualty levels compared to others that lack capital to invest in emergency response management (Dynes *et al.* 1977; Burton, 1993). As a result, actors have negative perceptions about their own ability to handle disaster victims because they never expected to do so. Generally, actors feel that they do not have the required skills to handle disaster victims if included in their group. Even with the knowledge about departmental disaster management strategies they are still lacking the information regarding the MNSC Directive 20. This finding is consistent with the studies of

Fakhru'l-Razi *et al.* (2001) that the emergency management system in Malaysia focuses more on action plan in every level from national, state to district rather than local encounter. Thus, they have the perception that handling disaster victims and implementing regulatory compliance requires different skills. Disaster victims' process of adaptation has always been and still is the sole responsibility of disaster workers, especially the actors in disasters.

Meanwhile, there are always pressures from the press, public and NGOs about the quality provided by the actors (Wisner *et al.* 2004). Pressure generates a positive obligatory action by government to provide actors with training. Actors will act better if they are well trained and understand what they are doing (Meidinger, 1987; Heide, 1989). Therefore, it is understandable that actors are anxious about the MNSC Directive 20 because they never exposed to it. It is also a conspicuous criticism of the actors training programme that actors have little appreciation of the scope of work that they could profitably contribute to. These findings are consistent with the studies of Paton *et al.* (1999) that ineffective team enhancement and administration, clarification of roles and capabilities, professional development and training and cooperation will disable the policies. Furthermore, lack of expertise and training, poorly integrated experience in its organisational culture and learning cycle contributed to the end result being significant delays in housing delivery for the disaster survivors (Berman *et al.* 2007).

### **C. Regulatory Compliance would not benefit the Actors and the Disaster Victims**

Actors hardly accept the fact that regulatory compliance will give them and the disaster victims' benefit from the MNSC Directive 20. It was consistent with the notion by Godschalk (1985) and Wolensky (1990) that a disaster community often has difficulty in seeing the potential benefits of mitigation. In fact the implementation of this programme gave them more responsibilities, forced them to attend in-service training, work overtime, possibilities to be blamed if the programme was not successful implemented and this will effect their yearly appraisal and department performance. Therefore they suggested that changes should be made in order to make the implementation successful.

The disaster victims are being ignored but they have rights (UNHCR, 2004) and the best protection against infringement of rights is to ensure that regulatory measures are implemented and enforced fairly and systematically (Anderson *et al.* 1991a). The majority

of actors interviewed agreed that disaster victims have the rights to regulatory compliance due to the fact of equal rights and socialisation opportunities. The actors are uncertain about the issue whether the knowledge of disaster victims will be improved or not if they participated in the decision making process. However, actors can ensure that the disaster victims' social skills (communication) might develop even though they might not be able to easily recover emotionally (most of the victims were in a traumatic case). Furthermore, the current contents of the MNSC Directive 20 are not suitable for the actors and the victims that require revision especially in giving more authority to operational level (decentralise), although the programme shows some improvement (i.e. caring feeling) in the adaptation of disaster victims after a disaster strike. This finding corresponds to Berman *et al.* (2007), that community-based reconstruction and decentralisation are realistic. They have indeed been proven to be faster, resulting in the highest quality and satisfaction to stakeholders. Thus the actors wanted to see more changes in the MNSC Directive 20.

#### **D. Department Organisation**

Key variables affecting compliance are commonly based on the perceptions of individuals concerning fairness and appropriateness of the law and its institutions (Tyler, 1990). The success depends on the level of satisfaction by the stakeholders (regulators and regulatees). One principal tool available to the public service sector in any attempt to gain control over policy is its performance as mentioned by Peter (2001). However, actors perceived themselves as having partial commitments towards the MNSC Directive 20 that consequently results in non-compliance. This negative perception by the public service gives a bad impression regarding government policy. One of the reasons is that it was difficult for the actors to entertain specific demands from the disaster victims especially when it came to the matter of culture and religious interest (e.g. worship space, prohibited objects, daily routine). Apparently, actors are the ones to be accused of regarding the unsuccessful nature of any disaster management programme especially the actors from the 'special body appointed by the government' because most of the assistance in providing accommodation to the disaster victims was handled by them. Consequently these daunting complaints will then affect the organisations performance or company portfolio.

Additionally, compliance must become institutionalised (Makkai *et al.* 1993; Parker, 1999; Luttig, 2000) with unanimous support from stakeholders to the planned

development project. According to any standard operation procedure in public service, most of the decisions are made internally. This finding has been shown by Amirahmadi (1990) to be an important method to centralise authorities in the process of rehabilitation/reconstruction. The apprehension is that the involvement of the disaster victims in the process of decision making possibly contributed to a distraction from department objectives, lengthen the process and revealed lack of commitment of the administration. The study findings show that the outcome of the regulatory compliance process produced negative effects on the performance of department levels, especially to the national level. Most of them work at administration level. On the other hand, most of the disaster effort has been done by others at disaster settings. Miscommunication within departments, due to ineffective distribution of information (needs from victims), contributes to programme failures and effects a departments' reputation.

#### **E. The Actors' Workload**

Actors interviewed were unanimous in believing that regulatory compliance would increase their workload. This result supports studies by Ramayah (2001), which show that the demands of meaningful work are increasing for the employees in Malaysia. Besides duties and responsibilities in the department level, clerical staff members said that they would have to lavish extra attention on disaster victims under the MNSC Directive 20 to make up for their adaptation to the programme guidelines. This extra attention would distract actors' attention from the regulatory compliance because human feelings and differences are demanding and might drag out the allotted time for providing emergency housing. Actors not only have to perform at the department level, they also have to perform at the disaster settings and attend programmes or training that are sometimes out of their scope of work. However, the commitment in responsibilities from the actors is considered to be high. Work was ranked as the most important followed by supervision and promotion. This supports the findings of Hackman *et al.* (1971); Seybolt (1976) and Ramayah (2001).

#### **F. Appraisal and Relief Works Pressure**

The main issue mentioned by the actors is that they were not provided enough information and skills to work at disaster setting apart from office routines. At the same time they were required to get involved in disaster management. Studies by Morago, for example (2005),

show that often the pressures of time and people's needs counteract the demands of quality and suitability. They are basically judged on how well they can handle these matters and keep in touch with disaster victims. Without proper knowledge about the programme and skills, they are not prepared enough to get involved in disaster management but they still have to as it forms part of their responsibilities. This finding highlights the research that has been done by Dynes *et al.* (1980) that most disaster organisations will operate as usual based on their daily routine even in disaster situations. If the case turns out badly they will be blamed for not carrying out their job properly. As a result of the conflict in regulatory enforcement, assistance in disasters is not quite what the disaster victims expect (Crawford, 2002).

Gunningham *et al.* (1999a) highlighted how compliance definitions are preferred by way of outcome (e.g. a safe workplace), rather than defining compliance according to prescriptive criteria, or adherence to a specified process. Unaddressed requests from disaster victims lead to unsuccessful outcomes in disaster response. These issues put a lot of pressure on the actors, especially when it affects their appraisal, promotion and increment of incentives. The actors suggested that the evaluation of appraisal at the department level should be more practical and expended. They requested that their appraisal must consist of training service attendance and should be done with the actors directly involved in disaster management. Furthermore, their contribution should be recognised and appreciated.

#### **G. Negative Acceptance of Disaster Victims by Actors and Communities**

Behaviour of officials was found to be a central constituent of any enforcement regime at operational level (May, 2003). In this research, most of the actors rarely visited disaster sites for a fair while after the disaster occurrence. Consequently, they are virtually unknown to the disaster victims in disaster victims' group. They reasoned that involvement of the disaster victims would complicate the situation and make the development and reconstruction process difficult. They also admitted that they never expected to make contact and get involved in these disaster victims' adaptations. The actors expected to see the outputs of the projects prescriptively the same as written on the papers (development plan). This finding is consistent with the studies of Bennett *et al.* (2006) that show how



results have too great an emphasis on outputs without appropriately tracking the outcomes on lives and livelihoods.

Actors would accept the disaster victims on the grounds of humanity and empathy but not in terms of responsibilities because they are bound to working ethics and there must be a gap between them and disaster victims. Although in the theory of social learning as argued by Aronfreed (1969); Bandura (1969), Mischel *et al.* (1976), Akers *et al.* (1979) and Akers (1985), the main variables concerning the compliance issue supposedly include opinions from peers that are affected by having individual encounters. The managers' negative perceptions of the extra workload would result from the obligation to handle disaster victims. Disaster victims' involvement in the process of decision making will just give them more concern over the disaster victims rather than departmental performance. This is especially true if managers are primarily concerned with their department performance in their departmental report. The managers concerned should reflect on Article 25 of the United Nations' Universal Declaration of Human Rights cited by the International Federation of Red Cross and Red Crescent Societies (IFRC) that "every world citizen has the rights to health and well being and the rights to security in the event of circumstances beyond [his or her] control" (McEntire, 1997: 222).

The group of actors who made frequent visits to the disaster site was the technical staff members who work at the district level. They express their impression mostly about accepting the disaster victims in their group because they had made direct contact with the disaster victims. Research in the case of Malaysia is unique and mostly represented from Malaysia's perspective. This is the reason why the actors might ascertain a higher level of tolerance and acceptance on cultural differences as mentioned by Kennedy *et al.* (2000); Jaouadi (2000) and Ramayah (2003). However, the actors prefer to accept the disaster victims if they are ready (rationally). The best scenario would be if the disaster victims had experience and knowledge about the MNSC Directive 20. Thus, the disaster victims might adapt to disaster victims' group easily.

Additionally, the actors were concerned that the disaster victims might not get what they expected. They might be under-treated by the actors due to the large number of members in disaster victims' group. The disaster victims would feel that they had not been treated accordingly due to discrimination or bias. Some of the community also does not offer assistance to the disaster victims, especially in terms of providing accommodation (as

host). Studies by O'Keefe *et al.* (2006) show that the urgent needs for hazard, precautionary and mitigation effort to lessen government responsibilities at community level are obvious but still not addressed. The community as a whole should be more supportive of the disaster victims. Actors assumed that communities will be accepting of the disaster victims if they are their relatives. Ironically, some of the communities rejected the assistance from the authorities because of transparency issues concerning the disaster victims.

## **H. Lack of Resources**

Unavailability or inadequate supply of appropriate resources would make the implementation of regulatory compliance difficult (e.g. information, safety materials, office materials, information). Actors have also to consider providing them with adequate human resources: most departments lack actors who are adequately trained in emergency housing. This finding is consistent with Mitchell (1996); McEntire (1997) and Godchalk *et al.* (1999) who argue that states widely disagree over the disaster-related policies they adopt, largely as a result of the inadequacy of political experience and economic readiness. In the case of disaster victims' psychological and medical treatments, for example, they prefer to hand it over to the specialists. The majority of actors are not trained in the MNSC Directive 20. A majority of the actors interviewed would need frequent consultation and explanation about the MNSC Directive 20. Most of the actors did not familiarise themselves with the international standards in disaster management. Only five per cent prefer to use it.

Actors also suggest that the implementation of regulatory compliance might be totally achieved if they are provided with the right working assistance (e.g. specialist availability and working instruments) to diminish their workload. These findings are consistent with the studies of Shaluf *et al.* (2003b) that enforcement authorities in disaster response should also be responsive to the international standards development that suits the Malaysia safety culture with the support of knowledge and physical assistance. Aini (2007) suggested that public administration in Malaysia requires more focus and determination in development projects in order to meet international standards (Aini, 2007).

## **I. Negative Acceptance of Regulatory Compliance by Disaster Victims and Actors**

Actors assumed that disaster victims, and actors themselves, perceived a negativity towards accepting regulatory compliance. Actors listed thirteen reasons (see section 7.8.1, p.213, Table 7.16, p.214) for opposing regulatory compliance implementation in their department. Most of the actors at administration level were against the intended implementation of compliance. Actors assumed that some of the disaster victims who were also against the implementation were hesitant about the authority's capability to provide them accommodation and act accordingly at the scene of disasters. These findings highlight what has been mentioned by Sieber (1981) and Hogwood *et al.* (1985) about the possibility of policy failures, specifically if a program may or may not achieve its goals, rather creating more negative side effects. As a result, the stakeholders' main objectives in disasters are preoccupied by other definitions of a disaster program (e.g. discrimination and bureaucracy) despite planning the disaster response as a priority.

As stated by Barakat (2003), authorities failed to react accordingly and this resulted in unsustainable reconstruction projects. Consequently, houses are remodeled by their occupants, rejected or might even be abandoned. Disaster management and emergency housing in Malaysia prioritises material provisions rather than social development held to underpin the very concept of a 'caring' society. At worst, the disaster victims may begin to feel that they are the problem rather than the disasters. These findings are consistent with the studies of Barakat (2003) and O'Keefe *et al.* (2006) that projects that are impractical and don't consider the appropriate needs of beneficiaries result in unsustainable rehabilitation/reconstruction projects.

Efforts in impact reduction should be given a priority in order to realise a sustainable culture which is moving towards the implementation of the Millennium Development Goals (MDGs) (Middleton *et al.* 2001). If the concept of 'disaster works' in the public service sectors was revised, the culture of the regulatory compliance could be implemented automatically. Actors should consider humanitarian grounds more than responsibilities. That is the ultimate challenge for change (see section 10.2, p.299) that Malaysia seeks to achieve in its 2020 vision. Consequently, nine categories of barriers or obstacles are listed that need to be overcome if regulatory compliance is to be given a chance to succeed in Malaysia.

### **9.1.2 Actors' Understanding of Regulatory Compliance**

These study findings lead to the conclusion that actors see the process of regulatory compliance as 'assimilation' and not 'accommodation.' Unchanging internal institutional structures can potentially create a cost of 'squeezing' external perceptions to fit (i.e. the actors adapting to the regulatory compliance environment, not the regulatory compliance environment to the actors) (Piaget, 2001). In 'accommodation', the internal institution has to accommodate itself to the evidence with which it is confronted, and thus adaption can be a more difficult and painful process (Piaget, 2001). Institutional goals or ambitions are adjusted to what, under given circumstances, appears feasible or possible (see section 10.2.1, p.300).

The actors did not look at the concept of regulatory compliance as a culture but as their job responsibility. Studies were emphasised in work culture for example by Hawkins (1984); Bell (1985); McGarity (1985); Meidinger (1985) and Jasanof (1986); that culture has become a central construction in administrative regulation. But the meaning and importance of this development remains quite unclear because of the complexity of culture in organisations that need better understanding in terms of attitude, perception, value and belief (Harvey *et al.* 2002). As argued by Johnston *et al.* (2001), emergency management should be looked as more than just coordination and assimilation on the regulators' side. Communities should also be given an opportunity to participate in disaster response to sustain empowerment, self-help and resilience. Therefore an emergency management agency is also capable of acting as a consultant for disaster communities rather than dictating the process of change.

Even though actors are knowledgeable and understand the concepts of regulatory compliance, emergency housing and disaster victims, they still consider themselves as having negative attitudes and demonstrate low confidence levels towards the implementation process. Actors perceive themselves as having a perception of negative capability towards their own understanding and knowledge in regulatory compliance, especially those within the state and district levels. This finding is consistent with the studies of Shaluf *et al.* (2003b) that actors are unaware of the MNSC Directive 20 disaster management guidelines, although the majority of them believe that the MNSC Directive 20 is essential.

Practically, regulatory compliance is rarely discussed within the department either formally or informally. Some technical staff members had mixed reasons and only discussed regulatory compliance with selected actors. There were possibilities that their work would be misjudged by other actors for not doing their job accordingly. According to them, the element of knowledge and abilities did influence actors' attitudes when doing their routine jobs. This finding is supported by the statement by Wolensky (1990) that the limited discourse on local disaster management indicates that this is a particularly problematic area for local policy makers. Furthermore, Drabek (2000) mentioned that both decision makers and operation personnel need to increase their understanding of the potential liability associated with emergency actions.

Actors (i.e. chairmen, technical staff members and clerical staff members) considered themselves as knowledgeable about the MNSC Directive 20. However, only the chairmen were confident about the ability of their working skills to implement full regulatory compliance. All departments in Disaster Management Mechanism in Malaysia perform at the same level of knowledge and ability; however levels of compliance are different according to the department due to different levels of control. Level of compliance was higher in the department that appointed officers to look after regulatory compliance. Nonetheless, most of the actors' biographical data (e.g. Gender, Level of Control, and Experience) had no influence on the implementation of regulatory compliance.

### **9.1.3 Actors' Perceived Rationale of Full Regulatory Compliance**

Actors may be persuaded to accept regulatory implementation, if certain conditions are met by the Prime Minister's Department. Actors would be willing to give regulatory compliance a chance if actors are given specialist support and enough exposure. Actors would also positively accept regulatory compliance if they are given the direct orders from their superiors, accept disaster victims without disruptive behaviour and even volunteer themselves to implement regulatory compliance. This finding is factual as mentioned by Aini *et al.* (2005) and Foong *et al.* (2006) that the Malaysian direction in providing accommodation in post-disaster is clear and on the right track. As a result, the actors recommend changes to the department structures, systems and practices prior to compliance with the MNSC Directive 20. Actors describe barriers as being obstacles toward the implementation. The main obstacle however is the inadequate training of the actors. It has

been suggested that the main change is to see further training provided to the actors in disaster response (Moin, 2006). The findings also showed that actors would not accept regulatory compliance voluntarily unless changes are made in working with incentives and aligned with their hopes that their contribution will be counted in their individual annual appraisal. Moreover, the proportion of manpower working in the disaster scene and resources provided should be in balance with the amount of the disaster victims and time.

Most of the actors were uncertain in supporting the implementation and they were also reluctant to attend the in-service training. They perceived this lack of support when not able to implement, and consequently not willing to attend in-service training, and vice versa. The actors also said that the MNSC Directive 20 was suitable and practical for their department but not for the actors and disaster victims. Regulatory compliance would give benefit to the department related to the scene of emergency housing and was suitable to be implemented. However the implementation is not effective at all levels of the National Disaster Management Mechanism and is not tailored for them and the disaster victims individually. These findings were consistent to the findings by Hunt (2005) concerning the statement that efforts and approaches towards regulatory compliance will, at the end, acknowledge different needs from individuals within different authorities.

Changes usually take a long while to take place (Knoster, 1991) even if a department wishes to introduce specific regulations in order to make present regulatory compliance work better because compliance depends on actors' attitudes and other relevant factors. This finding return to the notion by Fairman (2005) regarding the definition of compliance per se differs from a perspective that considers the scope and degree of compliance as the outcome of a negotiated process between a social actor and an enforcement officer. Thus, the reaction from the actors in regulatory compliance is also based on flexibility of surroundings.

Regulatory compliance is not a law as described by Conway (2002) and Corsellis *et al.* (2005). However, actors in the public service who are non-committal regarding compliance with any public service regulations will only put themselves at the stage of internal departmental ruling (e.g. promotion and appraisal) as reported by Sarji (1996). Commonly, workloads and different roles and responsibilities in department level were the main excuses by the actors for not implementing full regulatory compliance. They reasoned that their responsibilities are actually more than just to work in disaster management and

more to their departmental level legitimacy. They have to prioritise which one is more important. At some stage they are unaware that non-compliance occurred due to work commitments. Thus, this was the dilemma they ought to face that proved the findings by Aini (2007) that regulatory and organisational malfunctions were the main contributions to hidden errors in relation to the disasters response with 53.6 and 37 per cent respectively in Malaysia. These findings were true as mentioned by Meidinger (1985) and Hutter (1997) that ‘enforcement’ is not only about prosecutions because enforcement requires determination in organisational ability to comply with decided directions.

The findings from rationale of implementation, however, left further inquiries: should the department of the Prime Minister’s Department be willing to restructure the whole system to accommodate actors in every department, or to assimilate new better practices especially in providing relief working skills up to the level of international standards. Even if the government of Malaysia does address any positive responses from international communities (e.g. HFA and Agenda 21) in upgrading the public sector from time to time, the actors will not be willing to accept this restructuring or add value into the system. If regulatory compliance is viewed merely as a method of disaster actions for providing accommodation, then it would be of benefit only to a very small minority of the disaster population. Actors reasoned that efforts to implement full regulatory compliance will only please the disaster victims and increase actors’ workload at the same time. Hence the actors suggest that the implementation of regulatory compliance might proceed in a convenient way and be more welcoming if the disaster communities as a whole were to perceive two way socio-cultural benefits. Actors should also be provided with what they deserved (e.g. resources and incentives). From these findings, actors also expressed thoughts about the potential of regulatory compliance implementation to develop positive working ethics in the public service sectors and make actors more ‘caring’ towards the disaster victims. This development might be a good sign of moving towards achieving the national Vision 2020.

## **9.2 Variables Influencing Actors’ General Attitudes to Regulatory Compliance**

Deily *et al.* (1991); Hutter (1997) and Macpherson (2004) rightly mentioned factors that most influenced organisations at micro level, and that depend much on the people aspects of categories consisting of employers and employees; specialists and generalist; skilled and

unskilled; roles and responsibilities; and the experienced and inexperienced. However, it is different in the case of multicultural and multi-religious in Malaysia. Different Gender, Experiences, Roles and Responsibilities do not affect the way the actors respond to the MNSC Directive 20. This finding was consistent with research by Norhasmah (2004) and Aini (2006) who found that overall in Malaysian public services' gender, age, ethnicity and department job category, had nothing to do in influencing actors' attitudes towards doing their daily job. The only biographical data with international parallels as mentioned by Baldwin *et al.* (2001) and locally as mentioned by Shaluf *et al.* (2006) was the Professional Status that influenced the attitudes of actors in disaster management. Different posts in the organisation will act differently on the scene of disaster because different Professional Statuses have different portfolios.

Malaysian actors had a perception of negative capability towards their own knowledge and understanding about the MNSC Directive 20. These findings are supported by the Stahlberg *et al.* (1992), research which showed that individuals are likely to hold positive attitudes towards objects they think may have good attributes but negative attitudes towards objects they think may have bad attributes. Variables that contributed to their cognitive attitudes were different gender, level of experience within the department, level served at, whether they were a part of the training, whether the department has trained actors, whether the department has actors handling regulatory compliance or whether the department is related to the scene of emergency housing or not. The significant influences are from the lesser experienced actors, those between 16 to 20 years, who work at the state and district levels.

As mentioned by Franzoi (1996), the emotion attached to the attitude object may not necessarily be closely related to cognitive understanding. Therefore, even though the actors were found to be knowledgeable about the MNSC Directive 20, they still perceived themselves as having negative reactions towards their own affective component (feeling, moods, emotions and sympathetic nervous system) in regulatory compliance. Different Levels of Control, In-service Courses Attendance, Availability of Trained Actors in the Department, Availability of Actors to look after Regulatory Compliance and Department Involvement to the Scene of Emergency Housing contributed to the ways actors react in regulatory compliance implementation.



Actors perceive themselves as having a neutral conative component (behavioural response) of attitudes in regulatory compliance. This finding is complimentary to research by Jonas *et al.* (1995), as they said that intentions of behaviour are not necessarily expressed in action. Actors' perception of affective attitude resulted from their differences in Gender, Professional Status and status in Attending In-service Courses.

The three components influenced the way actors react to their perception towards the implementation of regulatory compliance and these three components had a strong relationship. These findings were consistent with Triandis *et al.* (1986), Stahlberg *et al.* (1992), Smith *et al.* (1995), Jonas *et al.* (1995) and Franzoi (1996). They said that attitudes must consist of these three components. Actors perceived negative general attitudes because their negative knowledge (cognitive component) and feelings (affective components) of attitudes towards regulatory compliance, although the (behavioural) conative components of attitudes were slightly neutral. They were unsure about their reactions towards the implementation of regulatory compliance but thought negatively about the level of knowledge and understanding required and also negatively accepting of the concept in their internal feelings. This finding recalled the mention by McGuire (1969, 1985) and Gibbons (1979) that studies on the relationship between the three components of attitudes had not necessarily produced the expected results.

There was a significant positive relationship between actors' perceived knowledge (K1) of regulatory compliance and their perceived ability (K2) to apply regulatory compliance. These findings are consistent with the studies of Stahlberg *et al.* (1992), that the cognitive aspect of attitude formation assumes that it is largely our knowledge and understanding that shape our attitudes. The actors had more confidence in doing their job if they were knowledgeable. Meanwhile, there were strong significant positive relationships between the both benefiting (F1) and suitability (F2) of regulations and guidelines in the MNSC Directive 20. The appropriate contents in the MNSC Directive 20 might benefit the actors and disaster victims. However, they perceived that the programme is only suitable if it is benefiting them, and vice versa.

Actor's knowledge (K1), feelings (affective component) and willingness to attend in-service training (Q31) had a strong relationship. A person's attitude will determine what the person will hear, think and do about the compliance issue (Allport, 1971). Beliefs about the object's positive or negative characteristics, feelings and emotions towards it and past

and current behaviours towards it were found as three main factors that develop a person's attitude towards an issue (Smith *et al.* 1995, Jonas *et al.* 1995; Franzoi, 1996). This research found that the significant relationship is negative between both K1 and affective attitude towards their willingness to support the implementation of regulatory compliance (Q31). If actors' internal feeling were positive about their (high) ability to implement regulatory compliance, they would prefer not to attend relevant in-service training because there was a negative correlation in actors' willingness to attend relevant in-service training. This finding is consistent with the research findings by Smith *et al.* (1995), that attitudes enable an individual to make sense of the social environment and forge connections with other persons. Attitudes assist a person to master the environment through the function of object (knowledge) appraisal (Smith *et al.* 1995). This function of attitudes enables a person to focus on the attitude object characteristics so that it can be dealt with meaningfully. Attitudes allow a person to classify new information and accommodate it along with established, existing information so that the complex world can be simplified (Stahlberg *et al.* 1992).

There are five sources of regulatory culture that are given as significant influences in this research. These are general culture, social structure, law, regulatory tradition and regulatory work (Meidinger, 1987). The related variable of resource support in regulatory culture has been shown by several studies (e.g. Becker, 1982; Barley, 1985; McCarty, 1985) to be an important factor in influencing attitudes to regulatory compliance. The findings of this research also reflect upon this subject. This research has shown that actors might be willing to consider regulatory compliance if support came from within and outside their organisation to set directions (objective) in implementing the MNSC Directive 20 especially if: (1) specialist support is provided to assist them, (2) managers are supportive of the programme and (3) appropriate information about the MNSC Directive 20 is provided by the relevant authorities. As mentioned by Becker (1982) and Barley (1985), a set of understandings about the objective that make it possible for the actors to act accordingly and the same result was found in this research. Thus, actors' knowledge (K1) about the MNSC Directive 20 plays an important role in influencing their attitudes towards the objective of the MNSC Directive 20.

Actors also claimed that the involvement of disaster victims in decision making, especially in terms of workload increment, will be reflected in their attitudes. This

statement was consistent with the earlier literature which stated attempts to 'harmonise' competing demands and forcing choices from outsider will create more burdens to the actors (Haines *et al.* 2003) and the regulatory burden faced by regulated entities from external forces is going to become increasingly difficult (Meidinger, 1987).

Meanwhile, actor's attitudes might change if they are responsible enough to get involved in the education of the disaster victims. The finding was consistent with the result by Haines *et al.* (2003) that the actors bear the burden of potential liability by getting involve with the disaster victims without knowing that they are also educating others (i.e. disaster victims). However, in this research the actors insisted on specialists handling the disaster victims in terms of education and training. Actors also reconsidered their responsibilities regarding working together with the disaster victims as part of humanitarian works and the rights of disaster victims in the MNSC Directive 20. However, 'public welfare' concerns may not be met by a free operation that leads to failure (Shearing, 1993; Baldwin, 1999) because the influence from other social, economic and political forces (Gray *et al.* 1993).

### **9.3 Final Conclusion**

Malaysia is unique and different from other developing countries because Malaysians have to consider cultural and religious affairs besides those of ordinary international issues like gender and natural resources. Some of the regulations in the MNSC Directive 20 are even higher in standard compared to the international standard, especially considering cultural and religious matters (e.g. minimum 3 rooms when providing shelter and separate worship space). In the case of Malaysia, it is right to ask: Should any country not be given the freedom to operationalise its own definition of regulatory compliance so as to meet its own needs within its own historical context? As a result, the challenges of involving disaster communities in disaster scenarios are more than just dealing with the nature, people, rules and regulations. The pressures also come from religious and cultural elements.

The quantitative data itself revealed that the actors are not knowledgeable because most of the actors who answered the questionnaires are working at the administration and clerical level in Malaysian Disaster Management Mechanism. Only chairmen had high confidence in their own skills to apply regulatory compliance. Statistically, the background characteristic that seems to have significant influence on actors' attitudes to regulatory

compliance were the Professional Status, Actors Attended In-service Courses, Department that had Trained Actors, Willingness to Attend Trainings, Official Care in Regulatory Compliance and Experience in Emergency Housing. Actors also denied that regulatory compliance might enhance the relationship between them and disaster victims. Most of the actors had hardly visited the disaster scene, or interacted with the disaster victims and they were hardly making direct contact with the disaster victims. They would be able to implement regulatory compliance if they thought they were high enough in ability to comply, and knowledgeable enough as a result of attending in-service training. If actors' were internally confident about their high ability to implement regulatory compliance, they would prefer not to attend relevant in-service training. Most of the department levels lack actors trained in the field of emergency housing because actors would prefer not to attend in service training even if their Department was related to the Scene of Emergency Housing; Department had Actors to look after Regulatory Compliance; and Department has Specific Regulation towards Regulatory Compliance. Actors admitted that disaster victims should not be isolated, but prefer to see that education/adaptation recovery (mentally) is handled by specialist because actors are not ready in terms of skills. Careful preparation might be vital to secure maximum co-operation from the work force and to prevent alienation and consequent failure. As a result, the questionnaire findings showed that generally actors have negative attitudes to regulatory compliance. Only a few actors (11 to 18 per cent) agreed with the idea of implementing regulatory compliance. They cited that the MNSC Directive 20 is formulated for good reasons, such as helping in the realisation of the 'caring society'; promoting and developing self-esteem in actors and disaster victims; and is in line with the national philosophy of equal opportunities (National Constitution: see section 4.1, p.92).

Meanwhile, the qualitative data itself revealed that actors were knowledgeable about the concept of regulatory compliance, emergency housing and disaster victims, because actors were directly involved in the development of emergency housing. Knowledge and awareness in emergency housing is a necessity. Halve of the overall actors involved in the interviews understood the rationale of regulatory compliance implementation by the Prime Minister's Department. Some technical staff members had mixed reasons and only discussed regulatory compliance with selected actors. It was possible that their work would be misjudged by other actors for not doing their job

accordingly. The actors other than technical staff members and actors with direct contact with the disaster victims received very little information regarding the MNSC Directive 20. Thus, they were anxious about regulatory compliance. However, actors claimed that all departments were already applying rules and regulations (other than the MNSC Directive 20) related to the scope of their work. For them this MNSC Directive 20 did not contribute to the benefit of the disaster victims, or for them individually. However this programme did give them proper guidelines and increased their department performance. They favoured work with the MNSC Directive 20 compared with other rules and regulations (national building codes and international standards) at the scene of a disaster, because the programme is the combination of both international and local requirements for providing emergency housing. Meanwhile, the majority of actors interviewed agreed that disaster victims have the rights to regulatory compliance due to equal rights and socialisation opportunities. However, they had expressed their reservations concerning the benefit of regulatory compliance for these disaster victims. Disaster victims who are capable (mentally, socially and emotionally) have the rights to get involved in the process of decision making in disaster victims' groups. Above all, regulatory compliance with the MNSC Directive 20 will be accepted by the actors, if directed by the Prime Minister's Department (see section 8.4.4, p.267). Furthermore, they also wanted to see changes to barriers towards implementing full regulatory compliance.

The quantitative and qualitative data showed an acknowledgement of the importance of ongoing regulation. Both methods proposed that more effort should be done to promote the importance of actors' knowledge of the MNSC Directive 20, due to the fact that actors lacked of information. They were also willing to work together with the disaster victims if the disaster victims are ready and the content of the program is suitable, even if their workload is increasing. The actors said that the MNSC Directive 20 was suitable and practical for their department only, but not for the actors and disaster victims. The current contents of the MNSC Directive 20 are not suitable for the actors and the victims and require revision, especially toward giving more authority to operational level (decentralise), although the programme shows some improvement (i.e. caring feeling) in the adaptation of disaster victims after a disaster strike. Regulatory compliance would give the benefit to the department related to the scene of emergency housing and was suitable to be implemented. However the implementation is not effective at all levels of the National Disaster

Management Mechanism and is not tailored for them and the disaster victims individually. More input should also come from the disaster community especially NGOs. The literature review (e.g. Drabek, 1986; Davis, 2007; UNISDR, 2005) shows that, those countries that have achieved high levels of compliance relied on cooperation between the industries (e.g. NGOs and private sectors) and the government (e.g. appraisal and incentive) that the Malaysians should be learned.

Actors had broadly negative attitudes towards regulatory implementation. These negative general attitudes were due to their negative thinking towards the level of their knowledge and understanding of the MNSC Directive 20. They were unsure about their reactions towards the implementation of regulatory compliance but negatively thought about their level of knowledge and also their internal feelings, because they know very little about the regulatory compliance implementation proposed by the Prime Minister's Department. Information is restricted to specific actors and only and rarely discussed. Actors at the national and state level considered themselves as positive but unsure about their knowledge in emergency management because they never expected to use any and were not ready. Actors at district level got more exposure and experience due to direct contact with the disaster victims. Thus, it was hard for most of the actors to accept the concept of regulatory compliance voluntarily. The real fact was that actors were unwilling to accept regulatory compliance in the present climate. The implementation of full regulatory compliance acquires them to be knowledgeable and always aware of international standards. Unfortunately they are reluctant to attend in-service training to keep themselves up to the international work ethic. They treat their daily working environment as a responsibility rather than a culture of regulatory compliance. The information distributed by the Prime Minister's Department was not enough, and the actors accused those responsible for the dissemination of the work. Most technical staff interviewed claimed that they were familiar with the related programme because they frequently visited disaster sites.

Actors do wish to see changes at the department levels before regulatory compliance is fully implemented, especially with what benefits them (e.g. training, support and incentive). Even though the actors' expressions were more negative, they were actually willing to support the implementation especially if instructed by the Prime Minister's Department. As civil servants, actors are required to observe and implement government

directives. Additionally, actors were interested to know about their working environments because most of them are familiar with the terms used at the disaster scene (e.g. disaster victims, emergency housing and regulatory compliance) and willing to talk about it with colleagues. Actors also expressed that even though regulatory compliance could be risky when involved with legitimacy and liability, it does have the potential to make actors more 'caring' towards the disaster victims. Actors agreed that the involvement of disaster victims in disaster victims' groups would increase their knowledge. However they were uncertain about the social development of the disaster victims due to a lack of advice and consultation from specialists regarding the MNSC Directive 20. Actors did not agree that disaster victims' emotional development would recover from disaster trauma unless it was handed over to the specialist. Nevertheless, actors were most favoured with the programme stipulated in the MNSC Directive 20 as guidance for providing emergency housing compared to other standards pertaining in international disaster communities. Actors added that efforts towards implementing full regulatory compliance are a good step in providing emergency housing.

At the Ministry level, it is obvious that the actors in Malaysia appear to see the process of regulatory compliance from the point of view of the existing customs in the public service system and work ethic. The Emergency Management System in Malaysia focuses more on action plans at every level from national, state to district rather than local encounters. Actors have the perception that handling disaster victims and implementing regulatory compliance requires different skills. Thus, actors assumed that their daily routine incorporate responsibility. Apparently, disaster situations are demanding and require them to become more than just officials, and instead to offer disaster assistance. This alteration has become the key issue in moving towards the national Vision 2020 ('clean, efficient and effective' administration). Therefore, the Ministry level should put more efforts to disseminate the MNSC Directive 20 throughout all of the departments under the Prime Minister's Department. The information and training lessons regarding MNSC Directive 20 should also be closer to all communities.

At the department level, it is unfair to criticise actors for currently having this negative attitude that results from them being only too well aware of the many barriers and uncertainties. They have not been given appropriate detailed information regarding regulatory compliance in the MNSC Directive 20 by those responsible for disseminating

such information at the Ministry level. Encouragement should be given to actors interested in acquiring information (training and involvement at disaster setting) about disaster management/the MNSC Directive 20, in terms of individual appraisal (e.g. promotion and incentives). Actors should also be given proper exposure when working together with the disaster victims (related to their job). Actors' lack of experience has created appreciable fears about the impending full implementation of regulatory compliance due to an apparent lack of planning for fundamental changes in disaster management at department level.



## CHAPTER 10

### Recommendations

“Based on their different risk types and levels, each nation should create their own National Emergency Management Model (NEMM) and because of country specific conditions each plan must be unique”.

(Ozceylan *et al.* 2008: 376)

#### 10.1 Introduction

Apparently, information about the 'Policy and Mechanism of National Disaster and Relief Management' is important in order to gain support from officials with respect to positive attitudes towards regulatory compliance. Even if the complete version of the MNSC Directive 20 is restricted, efforts to disseminate the contents must be done effectively within and outside the departmental level. The government should encourage the participation of officials in training and other learning activities in order to gain knowledge and distribute to others (e.g. private agencies and communities) without the opportunity to attend such activities.

It doesn't matter what the Prime Minister's Department has planned, it needs to consider that actors could not reasonably be accused of having this negative attitude. They need to be convinced that regulatory compliance is of worthwhile benefit for the actors and disaster victims. They need informative advice and guidance to enable them to see the very probable societal benefits that can lead towards regulatory compliance development. Actors cannot simply be expected to accept the programme without any changes made in the present department settings or with regard to their working condition status. There is no doubt that actors would expect additional input in the form of increased resources and extra supports, especially in information dissemination and working assistants.

#### 10.2 Recommendations

The suggestions made by actors in this research should be able to help personnel involved in regulatory compliance implementation to undertake some necessary changes to ensure that regulatory compliance gets off on the right track during the initial stages of its

development. This will not be easy because change itself does not happen simply, immediately and unilaterally, but is a much more awkward, less predictable and often painful affair (Clough *et al.* 1991).

It must be conceded that there is no ideal scenario in changing the present situation. The real world of disaster management in Malaysia is complicated and there are constraints that cannot be ignored. An obstacle should not stop the Prime Minister's Department from trying to refine present compliance provision. Awareness of those obstacles is already a positive step with respect to further action because rectification of a holistic system is an on going process towards the effort of making things better. To consider the service provided as up to other world class standards, the Malaysian must have a strict working ethic towards regulatory compliance. This culture will then shape behavior in the members, and the success of the organisation, by ongoing compliance with regulatory goals.

A social system is a complex set of human relationships interacting in many ways (Knoster, 1991). To change the system means to revolutionise the people-organisation relationships in terms of the whole person, whole group, whole organisation and whole social system. After a thorough consideration, inspired by Knoster (1991) and after considering the present state of the administration system in Malaysia and what the Prime Minister's Department and the stakeholders might consider, changes are listed in section 10.2.1.

#### **10.2.1 Changes to Support Regulatory Compliance Recommended by Knoster (1991)**

One of the executive orders by the Prime Minister in the MNSC Directive 20 is to establish a reliable and functional Disaster Management Mechanism in Malaysia (Moin, 2006). This practical guideline (consisting of changes to vision, knowledge, incentives, resources and actions) must contain a clear purpose for determining diverse agencies roles and responsibilities when handling disaster, that must be consistent with the civil service framework stipulated in the national constitution of Malaysia (PSD, 1996).

##### **A. Vision Rehabilitation**

The first requirement of change, in order to avoid confusion, is vision. Part of this vision is to: (1) understand the differences between the practices of 'humanity' and 'responsibility' and (2) initiate the concept and practice of regulatory compliance in Malaysia.

This vision has already been partly fulfilled. As mentioned by Moin (2006), the vision can be seen clearly in the current policy of disaster management in Malaysia. These visions are:

1. To have an integrated mechanism of disaster management with emphasis on the concerted and coordinated actions;
2. Integrated disaster management mechanism means a combined and coordinated response of the various agencies in the management of disaster;
3. Coordinated and concerted actions mean the harmonious integration of all agencies involved with the objective to handle the disaster efficiently and bringing the situation back to normalcy.

The vision of a safe environment for the community is already started by giving training and assistance not only for the actors, but also for the disaster victims. An informed and concerned public have a significant amount of strength in disaster planning. Furthermore, a sensible emergency manager will ensure that the public stays informed so that the public power and public policy contribute to the strength of the disaster management programme (William *et al.* 1991). Concentration should also be giving on more encouragement to the actors to ensure a positive result in disaster planning by upgrading their departmental appraisal and incentive schemes. Unfortunately, this study shows that the Ministry's top down vision of regulatory compliance has not been widely shared with the personnel in the department level, who should be most involved in its implementation process. In other words, there is no communal vision between the top ministerial administrators and the actors especially those who work at the disaster site. Planning is not a product; rather it is an ongoing process (Dynes *et al.* 1977). This understanding would greatly help in the development of the actors' own vision of regulatory compliance and for the Minister it would be to seek and impose vision on unreceptive actors.

The study findings clearly show that actors would comply with Ministerial Directives in accepting regulatory compliance but this would not guarantee commitment from them. Imposition of vision might make the actors rebellious towards the programme, especially as the research indicates that they have generally negative attitudes towards regulatory compliance with the MNSC Directive 20. Actors must be allowed to figure out

their own vision (within the broader vision of the Prime Minister's Department) and the Prime Minister's Department needs to support this outlook change. Therefore the Ministry through the state level needs to ensure that the department receives as much information as possible regarding regulatory compliance, either through official documentation or by sending relevant officers to explain the programme proposed. If disseminating information is done through documentation, then special notes need to be attached to the documents requesting the head of the department ensures that all actors in the department receive the information, especially the technical staff.

## **B. Working Skills Expansion**

The second requirement for change is for actors to be equipped with the relevant working skills through pre-service or in-service training in disaster management. Training in disaster management is significant in making actors supportive of regulatory compliance. Cooperative actions in 'Enforcement Pyramid' provide an extensive base of regulatory apparatus consisting of persuasive approach and consultation in technical and administration. The constructive motion of punitive actions and ultimate sanctions parallels influencing regulatory processes at the base of the 'Enforcement Pyramid' throughout a mutual relationship between the regulators and regulates (Braithwaite, 1985). Without training, actors would experience fears and anxieties about the MNSC Directive 20. Actors insisted that it might be necessary to circulate information about the MNSC Directive 20 to the disaster victims so that the disaster victims will not be skeptical towards the government intention in any disaster assistance. Actors will need to be convinced that regulatory compliance is not only their responsibility but also part of humanitarian work. As a result, they will use their own initiative to learn the skills to handle disaster victims and comply with the MNSC Directive 20.

The Prime Minister's Department may wish to reconsider the training programme given to the actors with updated contents. More modules particularly in regulatory compliance need to be incorporated in the pre-service training. This progress will hopefully increase upcoming actors' knowledge on the MNSC Directive 20 and therefore would likely alter the cognitive element of attitudes towards regulatory compliance. Thus, in-service training of upcoming actors and established actors during regulatory compliance

implementation should be more than just one-off workshops and disconnected training; rather it should be a continuous process.

### **C. Incentives Enhancement**

The third requirement for change is incentives. Without incentives actors would be resistant to regulatory compliance implementation because disaster management requires the actors work overtime not only in terms of working hours but also working pace. Human motivation is economically based on physical wellbeing (Smith, 1957). Actors are performing decently when receiving the appreciation of others.

There are two ways actors might be convinced to accept the MNSC Directive 20: (1) by making it compulsory that it could do more harm than good to the MNSC Directive 20 because the actors feel frustrated and/or angry and (2) by giving actors incentives in the form of department and personal gains (e.g. financial reward, breaks and term) and reduction of workloads. Therefore the most appropriate incentives to encourage actors should relate to their Professional Status promotion as actors. Thus the most affordable personal incentive that could be given to actors within the Ministry's limitations is to make actors' participation in the MNSC Directive 20 a substantial part of their yearly appraisal, since their annual pay increment depends on this.

### **D. Resources Supplementary**

The fourth requirement of change is in the area of resources. Resource support is essential to avoid actors becoming frustrated with the MNSC Directive 20. Actors tend to exhibit positive attitudes towards regulatory compliance if they are given appropriate resource support. Actors requested that they should be given all the resource support necessary if they are required to implement regulatory compliance. There are two types of resource support, mentioned by actors, needed for regulatory compliance practice: (1) working materials and physical facilities support and (2) human resource support. All actors involved in the programme should be supported with appropriate working materials and facilities. Human and material resources should be made available to make Disaster Management Mechanism in Malaysia work (Aini *et al.* 2005). Actors also require support from their superiors in ancillary professions (e.g. psychologist and therapist). The problem with these support services is that most of the department has insufficient numbers of

officially trained specialists. The availability of these specialists might assist the actors when they are needed and avoid any delays in the process of decision making.

#### **E. Execution of Action Plan**

The fifth requirement for change is an action plan. One of the accepted approaches towards regulatory compliance is the ability of organisations to claim regulatory breach and potential future violation prevention, with equally reasonable punitive measures and sanctions (Reiss, 1984). Thus, an action plan is necessary in order to support actors in defining clearly realisable objectives and targets. An action plan might also help in producing the means of evaluating programmes as well as assessing need. An action plan involves planning strategies for the eventual implementation of regulatory compliance downward from the ministerial level to state, district and local people. Implementation of strategies in acquiring and distributing resources from all departments in the National Disaster Management Mechanism; training of actors; and methods of monitoring programme progress, all need to be planned carefully. In reality, there is a multiplicity of regulatory goals, with potential for conflict (Haines, 2002). Therefore in order for ongoing commitment to the goals of regulation to be secured, compliance needs to be seen as an everyday part of business activity (Gunningham *et al.* 1999a).

The Prime Minister's Department should consider the 'whole department' approach to regulatory compliance. Everyone associated with the department should play a part in the MNSC Directive 20. The actors involved in the MNSC Directive 20 should be supported by the entire available department personnel, in respect to implementation of full regulatory compliance. The compliance should not be restricted to only the technical staff but also include all available personnel. This corporate culture will then shape members behaviour toward acting in a manner that recognises that the success of the organisation is best achieved by ongoing compliance with regulatory goals (Brooks, 1988). The actors should find a way to:

1. Foster community spaces for regulatory compliance, and help them to integrate and forge new social and knowledgeable partnerships with authorities;
2. Accelerate the process of assistance from federal government and reduce bureaucracies;

3. Seek ways, even in a short time, to educate disaster victims on how to face the difficult times and to get involved in decision making formally.

The compliance culture is not only applicable for the MNSC Directive 20. It is also applicable to all government policies and programmes. The related government policies and programmes should be parallel to the international directions like the Millennium Development Goals and The Hyogo Framework for Action. The policy maker should prioritise the needs of disaster victims. There should be closer alignment between the government's policies and assistance programmes, towards addressing the crucial needs of the majority of disaster victims.

### **10.3 Possible Implication for Change**

In a society that is trying to create a 'harmony' outlook, the department system would have to look beyond a simple understanding of resources and incentives for change. There is a need to reconstruct vision and to think about disaster management by acquiring different approaches when presenting the MNSC Directive 20. Pre-disaster planning is an essential part of the disaster management cycle and, as such, is recognised as being of fundamental importance to ensuring that responses to events are as relevant, efficient and effective as possible (O'Keefe *et al.* 2006). There is also a need to rethink the process of merging the actors and community (disaster victims) together in a disaster site. This diversity should not be limited to those with technical knowledge, but should apply in the humanitarian sense, in which differences can be described in ethnic, religious and social-cultural terms. The process of bringing this disaster victims' group together within the existing disaster environment/settings will require a fundamental review of existing systems, methods of resourcing, process of working and ultimately change in attitudes. Whether or not this could be achieved depends heavily on the will of those responsible for its implementation.

It cannot be denied that implementing this MNSC Directive 20 in Malaysia could well put almost unbearable pressures on the work force, owing to the very necessary restructuring of the disaster management environment. But disaster management is much more than mere restructuring. Nor are incentives for actors identified as the only obstacle to be tackled. Much more significant effort is needed to appreciate and address the many cultural prejudices, anxieties and constraints that can paralyse the will to find new ways to

solve old problems because disaster management is focus on the process to diminish risk to life in the present and future disasters (Alexander, 2002). Last but not least the planning of each countries disaster management models must be uniquely designed to suit their specific needs (Ozceylan *et al.* 2008).

#### **10.4 Transferable Lesson**

Learning can help in both redrafting regulation (experimental) and implementation, because the decision making circle in Malaysia starts with the social learning process. In every project delivered by the authorities, there will be a project report and evaluation. Input from academic research and consultation is a must in revising and formulating new policies such as the National Structural, Physical and Local Plan and other related works in Malaysia. The question is what stakeholders should learn from the ineffective implementation of existing policies and approaches and why are they always an issue rather than acted upon? Stakeholders should act together to think beyond organisational or agency boundaries to deal effectively with most problems. Policy makers should account for, and measure, what matters especially in assessing the needs from victims and be realistic about any evaluation. Therefore, policy makers should consider who policy is for, from central government to local delivery agents; and from professionals and service delivery to communities and service users. Support may also come from good community leadership with good personalities and other local conditions such as their own skills, dedication and experience. In addition, the sign of significant progress may take a long time to consider as full regulatory compliance. Hopefully the policy makers will be patient and persist in delivering humanitarian work and policy making.

Generally, the case of Malaysia is not adequate enough to result in concrete conclusions, given the small scale of the impact of the disaster, as well as the small number of houses that have to be built. Perhaps at a certain point Malaysia might be the leading small country in developing actions to cope with disaster prevention and mitigation. The findings might not only suit other developing countries administrative situations, but also be a useful example of a sensible multi-religious approach. For example, the requirements for providing 3 bedrooms, to separate different genders and a different worship hall for different groups of people due to religious and cultural demands.



## **10.5 Dissemination**

In contemplating fresh training input for the Malaysian work force, an organised training body can display a high level of professional identity and activity and membership commitment that enables governments to collaborate with them in a variety of new ways so as to expand the approaches to disaster management culture. This could be of major value for Malaysia. However, it is not the intention of this research to end up with a new constitution that consists of a huge membership. Rather it is to initiate awareness by disseminating output. And in addition, the submission of articles extracted from this research (see Appendix 5, p.334) to the journals in any disaster management and housing related fields for publication both in the English and Malaysia language.

### **10.5.1 Next Steps as Part of Dissemination**

The next contributory steps in the dissemination process are:

1. Networking with researchers and other experts towards information exchange;
2. Lessons learned in developing a plan to build capacity:
  - a. Set realistic expectations for what can be accomplished because it takes time to build skills among diverse groups of people;
  - b. Build awareness and credibility within and among the various stakeholders and constituent groups to build capacity for evaluation and to create awareness for the necessity to evaluate;
  - c. Institutionalise increased capacity efforts by establishing policies, processes, training and other knowledge-management approaches (i.e. technology); and
  - d. Increase all stakeholders' understanding of data, uses, need for reliability and ability to share or collaborate on data-collection efforts.
3. Resources provided within reach of each party interested;
4. Identifying stakeholders (actors and groups of interest) and information needs. Set up meeting(s) with them; and
5. Return back to the samples/actors as promised while doing publicity and acknowledgement (small incentives like future venture and sharing findings).

This study of actor's attitudes towards regulatory compliance is therefore only the beginning and is only a very small part of the broad issues of regulatory compliance in

Malaysia. More studies are required to gain deeper understanding of the complex issues in handling the disaster victims of disaster scenes, especially in emergency housing. The following investigations are recommended:

1. Study of disaster victims attitudes towards regulatory compliance in emergency housing;
2. Study of the practice of regulatory compliance practice;
3. Study of Malaysian policies towards the possible changes in current policies to support regulatory compliance;
4. Study of resource management to support regulatory compliance;
5. Study of the risk assessment procedures by government concerning the control of risks through regulatory and managerial devices. Emphasis on assessing potential hazards, argue the critics, can prove expensive, infringe civil rights and lead to inflexibility and a lack of responsiveness.

## **10.6 Conclusion**

In summary concerning the main negative attitudes, it is essential to recognise them as the barriers that would have to be systematically addressed by the Prime Minister's Department to minimise their negative effects on regulatory compliance implementation. Questions which have arisen from this research have to be answered: What are the strategies needed to minimise the negative effects? How much funding and commitment is the Prime Minister's Department willing to allocate to a programme that in reality would benefit a relatively limited number of disaster victims? Would the Prime Minister's Department be willing to sacrifice other areas of its National Security Programmes in order to boost its regulatory compliance implementation? Is there any political will in the government to push its policy to this extent? And in a more positive light, what changes is the Prime Minister's Department willing to introduce so as to establish widespread acceptance of compliance culture and 'caring' community as a whole? It would be easy to feel overwhelmed by the immensity of the task that faces the work force, but it may well be from within the present human resources that the Prime Minister's Department may begin to seek some of its answers. Ideas and recommendations in finding new solutions to old problems can move upwards as well as downwards; therefore the technical design of rules and regulations has now to be accompanied by organisational design. Although the

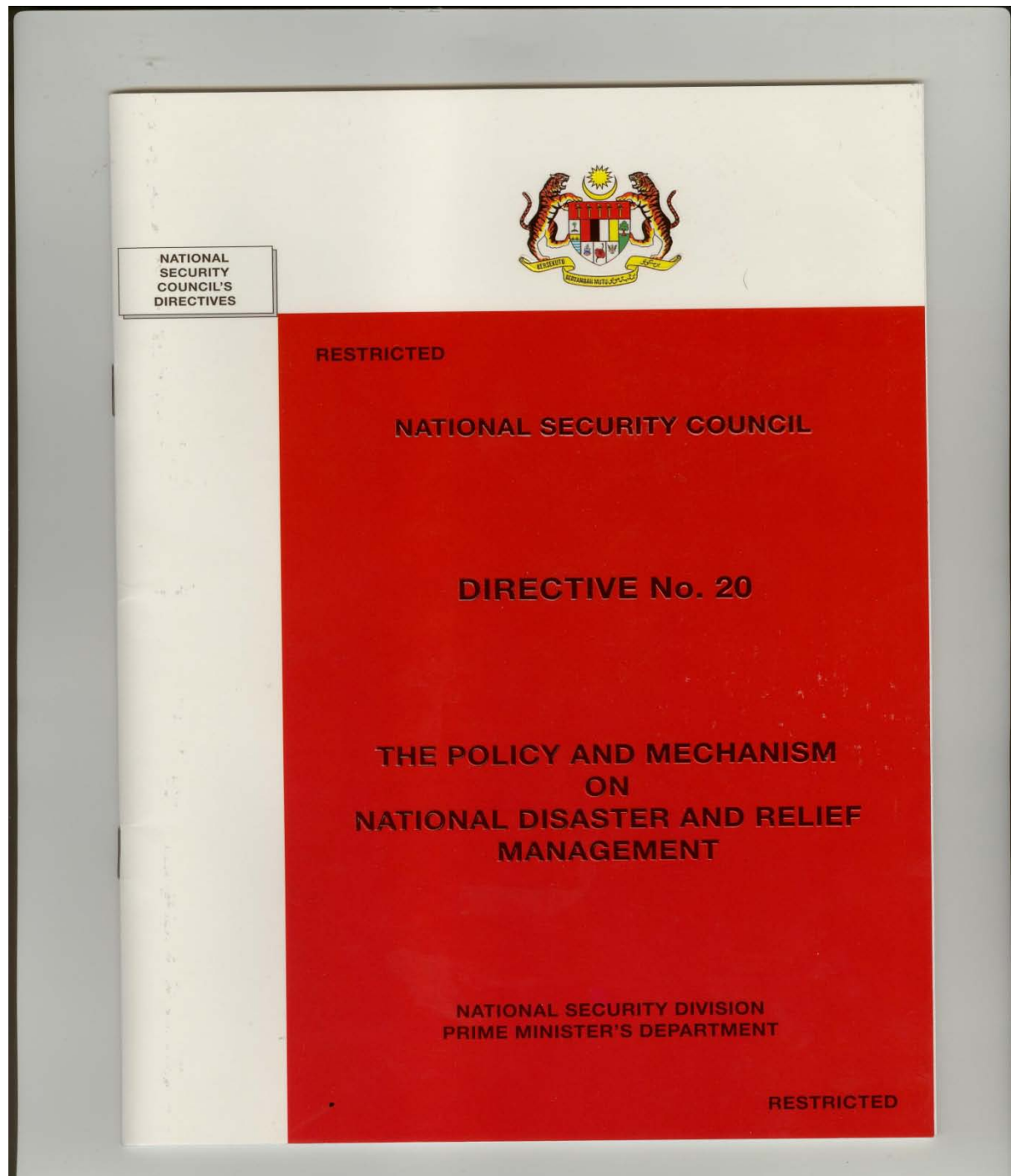
established ethos of Malaysia's public service sector has tended to be one of control from above, there is promise and virtue in seeking to promote a professional culture.

## Appendix 1: Hyogo Framework of Action Summary of Commitment, 2005–2015

Expected outcome	<ul style="list-style-type: none"> <li>• Substantial reduction of disaster losses (in lives and in the social, economic, and environmental assets of communities and countries)</li> </ul>
Strategic goals	<ul style="list-style-type: none"> <li>• Integration of disaster risk reduction (DRR) into sustainable development policies and planning</li> <li>• Development and strengthening of institutions, mechanisms, and capacities to build resilience to hazards</li> <li>• Systematic incorporation of risk-reduction approaches into the implementation of emergency preparedness, response, and recovery</li> </ul>
Priorities for action	<ul style="list-style-type: none"> <li>• Ensure disaster risk reduction is a national and local priority with a strong institutional basis for implementation</li> <li>• Identify, assess and monitor disaster risks; and enhance early warning</li> <li>• Use knowledge, innovation, and education to build a culture of safety and resilience at all levels</li> <li>• Reduce underlying risk factors</li> <li>• Strengthen disaster preparedness for effective response at all levels</li> </ul>

Source: ADB (2008)

Appendix 2: The MNSC Directive 20 Cover Page



Source: NSC (1997)

### Appendix 3: Basic Terminology in this Thesis

Term	Description
Actors	Managers, clerical staff, technical staff, general officers and special body appointed by the government (in qualitative sample only)
Administration	Operating system by the persons (or committees or departments) who make up a body for the purpose of meting out justice according to the law
Affective (adjective)	The experience of feeling or emotion
Attitudes	A complex mental state involving beliefs and feelings and values and dispositions to act in certain ways
Behaviour	The action or reaction of something (people) under specified circumstances
Building Codes	Ordinances and regulations controlling the design, construction, materials, alteration and occupancy of any structure to insure human safety and welfare. Building codes include both technical and functional standards
Capacity	A combination of all the strengths and resources available within a community, society or organisation that can reduce the level of risk, or the effects of a disaster (Capacity may include physical, institutional, social or economic means as well as skilled personal or collective attributes such as leadership and management. Capacity may also be described as capability)
Capacity building	Efforts aimed to develop human skills or societal infrastructures within a community or organisation needed to reduce the level of risk (In extended understanding, capacity building also includes development of institutional, financial, political and other resources, such as technology at different levels and sectors of the society)
Crisis	An acute event that carries the potential to severely disrupt the functioning of an organisation or a community
Crisis management	Development and maintenance of measures to respond to or recover from crises
Crisis management team	Key managers appointed by the organisation to deal with a crisis event in the first instance
Crisis control center	The facility, adequately equipped, from which the crisis will be managed
Control	A relationship that one party can direct the actions of another independent party
Coordination	A relationship that participant agrees to work together, retaining their independence, to achieve a result by the most effective means
Compliance	The act adhering to, and demonstrating adherence to, a standard or regulation
Cognitive (adjective)	The scientific term for 'the process of thought' and an information processing view of an individual's psychological functions
Conative (adjective)	Synonymous with motivation/will/drive. The power or act that directs or impels to effort of any kind, whether muscular or psychical
Disaster	A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses that exceed the ability of the affected community or society to cope using its own resources (A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk)
Disaster assessment	Surveys carried out to determine the effects of disaster on a community and a society. Disaster assessments have three sub-activities: Needs assessment, damage assessment and access survey
Disaster community	Actors, disaster victims and stakeholders
Disaster management	The body of policy and administrative decisions and operational activities that pertain to the various stages of a disaster at all levels (short term and long term)
Disaster plan	The documented policies and procedures intended to prevent damage, minimise damage, or recover from damage
Disaster planning	The process of planning actions that will prevent, mitigate, or prepare for and response to a disaster (the process, policies and procedures related to preparing for a disaster)
Disaster recovery	Decisions and actions taken after a disaster with a view to restoring or improving

	the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk [Recovery (rehabilitation and reconstruction) affords an opportunity to develop and apply disaster risk reduction measures]
Disaster response/relief	The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration
Disaster risk reduction	The conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development
Disaster victims	Disaster victims were the victims who were affected by disaster
Disaster victims' group	The group consists of disaster victims under actor's advocacy
Emergency management	The organisation and management of resources and responsibilities for dealing with all aspects of emergencies, in particularly preparedness, response and rehabilitation (Emergency management involves plans, structures and arrangements established to engage the normal endeavours of government, voluntary and private agencies in a comprehensive and coordinated way to respond to the whole spectrum of emergency needs. This is also known as disaster management)
Enforcement	A term that refers to the process by which legislation or part of legislation, and treaties comes to have legal force and effect. The term is closely related to the date of this transition
Evaluation	Post-disaster appraisal of all aspects of the disaster and its effects
General culture	Pattern of human knowledge, belief and behaviour
Hazards	A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation
Housing	Lodging, shelter for human habitation. The immediate physical environment, both within and outside of buildings that families and households live and that serves as shelter. Also, a government project to provide shelter to low-income groups
Humanitarian	Someone devoted and involved in promotion of human welfare, improving people's lives and reducing suffering
Institution	An organisation founded and united works by social order and cooperation that governing the behavior of a set of individuals within a given human collectivity for a specific purpose
Law enforcement agency	A term used to describe either an organisation that enforces the laws of one or more governing bodies, or an organisation that actively and directly assists in the enforcement of laws. In doing so, the LEA assists the governing bodies to provide governance for their subjects and maintains social control
Legal	In accordance with a system of rules enforced through a set of institutions
Legal framework	All public procurement that governed by regulations
Law	A system of rules usually enforced through a set of institutions
Lifelines	The public facilities and systems that provide basic life support services such as water, energy, sanitation, communications and transportation
Mitigation	Measures taken in advance of a disaster aimed at decreasing or eliminating its impact on society and on environment
Officials	Someone who administers the rules, having official authority or sanction in an organisation or government and participates in the exercise of authority
Organisation	A social arrangement (hierarchy-rank, importance, seniority, power status or authority) that pursues collective goals, controls its own performance, and has a boundary separating it from its environment
Policy	A guide (plan) that establishes the parameters for decision making and action (to guide decisions and achieve rational outcome)
Preparedness	Activities and measures (attempt) taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations

	(readiness)
Prevention	The act of dealing with and avoiding risks from having harmful effects on either persons or property (preparing, supporting and rebuilding society)
Population at risk	A well-defined population whose lives, property and livelihoods are threatened by given hazards
Procurement	The act (activities) of getting possession (acquisition) of something
Risk	Risk is the probability that negative consequences may arise when hazards interact with vulnerable areas, people, property and environment. Risk is a concept that describes a potential set of consequences that may arise from a given set of circumstances
Risk management	Risk management is conceptual framework for understanding risk (hazards, vulnerability and readiness). It involves public safety issues at local levels, complex process that involves diverse stakeholders and implemented by multidisciplinary team working together with the community with many vulnerabilities to hazards. Effective implementation can only occur if there's a mutual agreement on the planning and training process
Readiness	Readiness is a sum total of the current competence of an agency, organisation, community to response quickly and appropriately to the impact and consequences of hazards. Readiness is the outcome of emergency preparedness programme and training. If readiness and capacity is insufficient; if vulnerabilities are too great; if the scale of hazards is too big; then, the risk is too high, emergencies may not be managed locally, the communities may not cope, disaster will occur
Rehabilitation	Efforts to temporarily restore the livelihood of the disaster affected disaster victims by providing temporary shelters and compensation aid while reconstruction plans are being carried out
Reconstruction	Efforts to permanently restore the livelihood of the disaster affected disaster victims by providing permanent housing or development that helps to promote a better and safer living environment
Regulatory compliance	The goal that corporations or public agencies aspire to in their efforts to ensure that personnel are aware of and take steps to comply with relevant laws and regulations.
Regulatory tradition	Customs or practices of regulations
Regulatory work	Situational practices of regulations
Regulation	The action controlling human or societal behaviour by rules or restrictions
Resilience	The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree that the social system is capable of organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures
Rules	A prescribed guide for conduct or action. The exercise of authority or control.
Secondary hazards	Those hazards that occur as a result of another hazard or disaster, i.e. fires or landslides following earthquakes, epidemics following famines, food shortages following drought or floods
Settlement	A community of covered living spaces providing a healthy, secure living environment with privacy and dignity to those groups, families, and individuals residing within them
Shelter sector	Abbreviation of the term 'site selection, planning and shelter sector', describing that part of the 'transitional settlement sector' that responds to the transitional settlement and shelter needs of refugees, within the mandate of UNHCR
Shelter	A habitable covered living space, providing a secure, healthy living environment with privacy and dignity to those within it
Shelter system	The combination of structural shelter items and 'shelter NFIs' (non-food items) that create shelter, such as tents with locally procured blankets and mattresses, and possibly stoves, appropriate to a cold climate
Shelter, adequate	Immediate environment for all aspects of family life, providing protection from the elements, secure tenure, personal safety, access to clean water and sanitation, proximity to places of employment and educational and health care facilities
Social structure	Relationships between individual and groups



Stakeholders	Individuals or institutions (public and private) interested or affected
Statute	Formal written enactment of a legislative authority that governs a country, state, city, or county (legal act)
Transitional settlement	Settlement and shelter resulting from conflict and natural disasters, from emergency response to durable solutions
Transitional settlement sector	The field of providing settlement and shelter in the context of conflict and natural disasters, from emergency response to durable solutions. Aim: communities, families, and individuals affected by conflict and natural disasters should be afforded, together with any hosting populations, TS support to ensure their security, good health, privacy, and dignity, appropriate to their needs
Transitional shelter	Shelter that provides a habitable covered living space and a secure, healthy living environment, with privacy and dignity, to those within it, during the period between a conflict or natural disaster and the achievement of a durable shelter solution
Vulnerability	Vulnerability is a concept that describes factors or constraints of economic, social, physical or geographic nature, that reduce the ability to prepare for and cope with the impact of hazards

Adapted from various sources such as UNHCR, the SPHERE Project and FEMA

## Appendix 4: Summary, Questions and Answer about this Thesis

### General Summary

#### Introduction

- Inspiration: I volunteered to work in post-disaster recovery when the Tsunami struck Malaysia at the end of the year 2004. In this and other activities, I was able to make observations on disaster sites and I concluded that there was much scope to improve both planning practice and training for those in the front line.
- Why this Topic: As a volunteer and has education background in housing studies, I realise that beneficiaries are actually unaware of non-compliance that exposed them to hazard. They have rights to have adequate shelters as agreed by all UN states members. Adequate means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water-supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of that should be available at an affordable cost.
- Motivation: As I explored these issues further, I was aware that, although sufficient regulation existed, regulatory compliance was low. I wished to explore why there was a gap between regulation and performance. I would like to know the status of this MNSC Directive 20 implementation.
- Current State: I saw many examples of non-compliance such as the bedroom size not according to specification; partition walls built of combustible instead of non-combustible materials; no parking and open spaces as required; improper insulation and painting; no front porch as a safety zone between the main entrance of the houses and the access road. The failure of the Malaysian Government to exercise the proper conduct of post-disaster provision has slowed the process of restoring the livelihoods.
- What is regulation?: Dependable rules that are governed by a mechanism known as an organisation.
- What is compliance?: The state or fact of according with or meeting rules and regulations.
- What is problematic? Statement of Problem: From my observation, I judged that implementation was not very successful because I thought that regulatory compliance would require making changes to existing barriers in the administrative environment. These changes would have to be based, to a large extent, on how actors' perceived and judged the benefits of regulatory compliance implementation.
- Why there is non-compliance?: Those involved in disaster response received very little information about implementation and I saw that no one really knew what they were meant to do. The policy effectiveness decays from the central government to the district in parallels with the small number of professionals who know what to do and the majority who do not.
- Key Literature Review:
  - (Dynes, 1993): Non-compliance within disaster management institution continues to occur; disaster itself is failure of social system.
  - (Davis, 2007): The response becomes highly politicised not according to international activities.
  - (Quarantelli, 1984): A disaster planning as 'a process' rather than a tangible product.
  - (Hutter and Meidenger, 1987): Sociological culture becomes a central study of administrative regulation.
  - (Aini *et al.* 2006): In Malaysia, organisational error and regulatory failures were found to contribute to vulnerability.
  - (Braithwaite, 1993): An attitude of the organisation is what values compliance goal at the end.
  - (Cohen *et al.* 2000): There is a necessity to understand behaviour as a better foundation before trying to improve public policy.
  - (Allport, 1973): Person attitude will determine what the person will hear, think and do about the object.
  - (Tyler, 1990): Actors perception is significant to include peers' opinion.
- Objective: The overall research objective is to determine the present attitudes of Malaysia's actors towards the planned introduction of full regulatory compliance, and if necessary to initiate strategies to assist their anxieties.
- Contributions: Actors' view toward the implementation of full regulatory compliance will inspire the government and related agencies to design a holistic organisation that perhaps will diminish negative

disaster likelihood as the nations' progress. Also will give input towards policy upgrade especially in awareness raising and capacity building in organisation.

- Originality: There were research been done on attitudes of government officials in implementing government policies generally but none to the disaster management policies called the MNSC Directive 20.

### Disaster Management

- Significant interrelated concerns in theoretical development in the field of emergency management:
  1. What is a disaster?  
Malaysia lies outside the Pacific Ring of Fire along the north-eastern islands adjacent to and including New Guinea and the Alpide belt along the south and west from Sumatra, Java, Bali, Flores, and Timor. Malaysia is safe from earthquake but receive a lot of rain rather than technological disaster.
  2. What is emergency management?  
The term was widely used in Cold War protecting civilians from military attack. In the EU they called crises management. In academic the term disaster risk reduction were used. International communities pleasantly use the term disaster management.
  3. What variables should be explored in academic research?  
Detail explanation will be made in the method section below.
  4. What actors should be incorporated into academic studies?  
Public service community particularly those who are involve in Disaster Management Mechanism of Malaysia. They are the managers, clerical staff, technical staff, and officers.
  5. What phases should be given priority?  
Pre and Post-disaster
- Disaster Planning Principles: Is the prime local response; a process with strategic action, programme and project levels. The process is base on disaster community strength before, while disaster and after disaster.
- Roles of Government: Government has close involvement to hazards as they control many effective tools to reduce vulnerability to hazards such as land use regulation and building code enforcement.
- New Emergency Management Model: Based on the combination of socio-technical system and human organisation in order to put together technical and organisational response to protect vulnerable communities with crucial participation from disaster victims.
- Potential Risk of Post-Disaster Recovery: Non-compliance will possibly trigger future injurious effects such as losses and destruction. The potential risks of post-disaster recovery to the affected community are reflecting to 'impoverishment' to displace victims and consider as potential risk of moderate or serious harm to the health and safety of the occupiers (or others) of the residential premises.

### Regulatory Compliance

- Regulatory Compliance Concepts: There are many models of compliance and enforcement to regulation. The traditional model (penalties and punishment), 'responsive regulation' (an introduction of 'regulatory forgiveness'), enforcement pyramid' (compliance from all regulators that starts at the base of the pyramid consist of persuasion and self-regulation to the top pyramid that consist of sanction and punishment), 'smart regulation' (a comprehensive approach with enforcement pyramid plus influence from outside third parties) and to avoid 'command and control' (structured order-military action) in today's 'regulatory mix' concept that involve participation of all authorities, agencies, NGOs and communities.
- Research in Regulatory Compliance: Analysis regarding policies and government instruments were more towards consulting federal governments especially to issues toward institutional compliance. In psychology and sociology emphasises, scholars look for cognitive and social learning elements.
- Compliance Assessment: Three stages of assessment (rectify related laws and other social responsibilities involve, considerable outcomes and utilising its own outcome monitoring tools) besides of refer to International Standard Organisation (ISO).
- Legal Context in Shelter/Housing Sector: International guidelines only present the legal context for the implementation of emergency housing 'responses' and do not represent or bind as a law. These guidelines outlined are based upon the consideration of law and human rights. It depends on local and national customary law.

- Community Participations: To study how to provide income generation, rebuilding social support networks, activities essential for maintaining cultural identities.
- Behaviours of Government Institution in Disaster Planning: Rules (i.e. social, political and economic) are conceived in institutions that affect human behavior. Government has to balance their responsibility in competing values as authority and their ideological position (political preference) in the free market condition (business governed by the laws of supply and demand) with control over 'fair rate of return' principle (earn profit from expenditures and investments, will then turn to service upgrades to the public).
- What is attitudes?: An attitude is a mental process that determines both the actual and potential responses of an individual in the social world consists of cognitive, affective and conative  
Cognitive: Intellectually (knowledge and understanding) towards the topic.  
Affective: Individual feelings, moods, emotions or sympathetic nervous system activity in relate to the attitude.  
Conative: Individual behavioral response to the attitude.

#### Malaysia Context

- Quality of Public Service Administration: The quality of public administration rates as average 78.8 by the World Bank in 2009 with 100 is greatest. The Global Competitiveness Report recently presented Malaysia at the 26th out of 160 countries (WEF, 2007). However, this rank is considered weak once compared to the competitors in the region like Singapore (5th), Hong Kong (11th), Taiwan (13th) and South Korea (24th).
- Malaysia and Asia: Malaysia receive heavy rain that leading to secondary disaster such as landslide and flood. The economical, geophysical and geographical characteristics of Asia make the region more vulnerable to natural disasters. The ASEAN Agreement on Disaster Management and Emergency Response (AADMER) was signed by the member countries in July 2005 in Laos as a result from a significant feature of the agreed HFA framework towards building better resilience among members.
- Malaysian Experience: Neither public officer workers' attitudes nor private managers followed regulatory compliance with the MNSC Directive 20. Previous studies in Malaysia have gauged subject knowledge, attitudes of general public and private sectors but none on public officers. They were only comfortable with their normal daily routine but not to the MNSC Directive 20. Even though Malaysian has shown a high level of satisfaction with the provision of temporary longhouses provided by the government, they are unaware of potential risk of harm and rights to equal and adequate housing.
- Disaster Planning in Malaysia: The Highland Towers' tragedy in 1993 set an exemplar and reference for future disasters management. After the tragedy the 'Policy and Mechanism on National Disaster and Relief Management' was formulated in 1994. The updated content then formulated the MNSC Directive 20 as a guidelines or Standards Operational Procedure for the authorities to respond in disaster situation.
- Formulation of the National Disaster Management Programme (Diagram 4.1) is guided by the MNSC Directive 20 in the national 'Policy and Mechanism on National Disaster and Relief Management'.
- The response of all mechanism according to the MNSC Directive 20 (Diagram 4.2).
- Emergency Housing in Malaysia: There was no information in the United Nation database on relevant legislative clauses of national housing rights legislation available from the United Nation country members of Malaysia, Thailand, Singapore, Myanmar and Brunei Darussalam. However, Article 8 by clause (1) in the Constitution of Malaysia provides that 'all persons are equal before the law and entitled to its equal protection'. Malaysian are all protected under present laws such as the Syaria Law (only applicable to Muslims), the civil and criminal codes; land use, planning laws and regulations; building codes and standards, development laws; and environmental standards It is true because there is no comprehensive national housing policy in terms of any housing development. Most of housing development refers to the guidelines such as the New Economic Policy and Vision Development Policy. The main reference is the Malaysia Planning that is renewable every five years.
- Lesson Learned from Disaster Cases in Housing: Trends in housing policy are very similar in the developing countries after a disaster strikes ('rubber-stamped', local community initiative and limited or imported technology-based) without understanding to local situation such as earthquake region and flood area due to comply with seismic codes and latest technology is back on the basis of

costs. Additionally, non-compliance stills not a culture in daily basis. States are encouraged to use traditional method of constructions in low income country because traditional structure by using wood is more elastic and seismic resistance.

### Research Methods

- Combination of both methods (Quantitative and Qualitative): Combining both quantitative and qualitative approaches on the grounds that this yields a fuller picture. Different paradigms safely separated by using triangulation technique that separate both methods from the beginning and analysis but the results were discussed together at the end based on aims stipulated earlier. Thus, this is a 'Two-Phase Design' approach because both paradigms are clearly separate.
- Why? Quantitative part or the surveys collected information from general perception. Qualitative part will explain what is not clear from the surveys. Furthermore, biographical data able to sort only actors involve in providing emergency housing. Hence, the sample was small but it is significant.
- How? Biographical Data: Biographical (actors' lives) data gained from the quantitative approach were used as guidelines for selecting respondents for the qualitative approach because only actors those involve in emergency housing were interviewed. The main aim of the interviews was to illuminate and articulate the questionnaire findings that might escape from general question in the surveys.
- Research Approach: Research in regulatory compliance is the sociological approach that should emphasise on 'a cultural perspective' because culture has become a fundamental construction of administrative regulation. There are five sources of regulatory culture with significant influences in regulatory compliance.
- Sources of Regulatory Culture: They are general culture; social structure; law; regulatory tradition; and regulatory work.
  - (General culture): Local cultures are copied in response to present climate.
  - (Social structure): Relationships and distribution within the system.
  - (Law): Organisation depends on law, regulation and policies.
  - (Tradition): Regulatory interaction that general culture, social structure and law contribute to the traditions.
  - (Work): Worked out in the daily interactions of members of regulatory communities.
- Three-Component Model of Attitudes: Franzoi (1996)
  - (Cognitive): Intellectually (knowledge and understanding) towards the topic.
  - (Affective): Individual feelings, moods, emotions or sympathetic nervous system activity in relation to the attitude.
  - (Conative): Individual behavioral response to the attitude.
- Core-hypothesis: Actors in the National Disaster Management Mechanism and their perceptions are correlated to working environment and sociological culture.
- Research Aims: To assess attitudes, understanding and rationales of regulatory compliance implementation.
- Research Questions (section 5.13.1, p.145): Formulated from current issues in regulatory compliance.
- These research questions then were used to develop survey questionnaires.
- Themes (section 6.5.4, p.178) were formulated as a result from literature review and field work experience while collecting surveys' data information. These themes then were used to develop interview questionnaires.
- Quantitative Method: Survey questionnaires
  - Questionnaires Designs (41 questions)
  - Samples (83% replied): 413 respondents out of 423 (self completion questionnaire)
  - Interval constitutes a score of 0.8 (composite mean scores).
- Questionnaires Design: Interviews questionnaires
  - Questionnaires Design (20 questions)
  - Interviews – 71 respondents as focus group from biographical data (in-depth interview)
  - classify/coding the data into groups (categories) and to identify patterns and relationships among these categories: Actors' perceptions were administered in sequence from positive towards the issue pertaining, undecided to negative [(1) affirmative about the issues being discussed (2) undecided on the issue, and (3) negative towards the issue] in most designated level (national, state, district and under special body appointed by the government).

- Standards of Quality: Trustworthiness Model was chosen and rigor to make sure tightness of verification and standard of quality in overall phases of research design. This model is based on the identification of four aspects, namely: Truth value (consent letter and respondents volunteered to get involve), applicability (all of the public service actors in every department in Disaster Management Mechanism in Malaysia), consistency (the methodology and findings presented directly without repetition) and neutrality (non-bias).

#### Quantitative Analysis

- Actors' cognitive component of attitudes to regulatory compliance.  
>Negative attitude
- Actors' affective component of attitudes to regulatory compliance.  
>Negative attitude
- Actors' conative component of attitudes to regulatory.  
>Slightly neutral: Not sure
- General negative attitudes of actors towards regulatory compliance implementation.
- Conclusion  
>Actors are not knowledgeable because most of the actors who answered the questionnaires are working at the administration and clerical level in Malaysian Disaster Management Mechanism.

#### Qualitative Analysis

The actors interviewed generally admitted that they know very little about the regulatory compliance innovation proposed by the Prime Ministry Department:

- This lack of knowledge about regulatory compliance is due to the fact that lack of information about regulatory compliance given to department at the national, state or district level.
- Regulatory compliance is rarely discussed within the department either formally or informally.
- The majority of actors interviewed said they had never been trained to handle victims and to understand regulatory compliance during their pre-service training.
- They also admitted that they never expected to be involved in any way at all in these victims adaptation.
- Generally, actors felt they did not have the required skills to handle victims if included in their group. Thus they have the perception that handling victims and implement regulatory compliance requires different skills.
- The majority of actors interviewed agreed that victims have the right to regulatory compliance due to the fact that equal rights and socialisation opportunities.
- They felt victims who are capable (mentally, socially and emotionally) and can behave themselves in disaster group and can cope with the rigors of resilient difficulties have the right to in the process of decisions making.
- Actors also expressed the views that even though regulatory compliance could be risky to get them involve; it does have the potential to make actors more 'caring' towards the victims.
- They listed nine categories of barrier or obstacle that need to be overcome if regulatory compliance is to be given a chance to succeed in Malaysia.

#### Conclusion

- Malaysia is a unique and different from other developing countries because of Malaysian has to consider cultural and religious matters (e.g. minimum 3 rooms in providing shelter and separate worship place).
- Actors had broadly negative attitudes towards regulatory implementation. These negative general attitudes were attributed by their negative thinking towards the level of knowledge and understanding (see section 9.1.2, p.386 and section 9.1.3, p.287) regarding MNSC Directive 20.
- They know very little about the MNSC Directive 20. This lack of knowledge about regulatory compliance is due to lack of information about the programme given to department at the national, state or district level.
- Generally, actors felt they did not have the required skills to comply with the programme.

- The majority of actors interviewed agreed that victims have the right to regulatory compliance due to equal rights and socialisation opportunities.
- Actors in Malaysia appear to see the process of regulatory compliance from the point of view of the existing public service system.
- Actors aware of the many barriers and uncertainties (see section 9.1.1, p.276) Actors do wish to see changes at the department levels before regulatory compliance is implemented.
- Both methods of quantitative and qualitative proposed that more effort should be done to promote the importance of knowledge towards MNSC Directive 20 because of actors were lack of information.
- Transferable lesson: Malaysia is a small country. The finding can be used to also a small country, multicultural and multireligion especially in separating bedrooms according to genders and in providing worship hall to disaster victims. Actors should understand each other in terms of responsibility, think outside of organisation, should consider who this disaster policy are for, should know what matters in assessing needs from disaster victims, be patient and persistent in humanitarian works and implementing disaster policy.

## Q & A

### Contents

#### General Questions

- **What you did in your country? Introduce yourself**  
Where did your research-project come from? How did your research-questions emerge?
- **What do you get from here/Northumbria University?**
- **What do you plan to do back in Malaysia?**

#### Specific Questions

- 1. What is the area that you wish to be examined?**  
How does your work relate to X?
- 2. In one sentence, what is your thesis?**  
In open explanation
- 3. Key conclusion from literature**  
Which are the three most important papers in X?  
Who are the main 'players' in X?  
Who are your closest competitors?  
*What do you do better than them? What do you do worse?*
- 4. Summarise your key argument/findings.**  
What do your results mean?
- 5. What are you most proud of, and why?**
- 6. What's original about your work? Where is the novelty?**
- 7. What have you done that merits a PhD?**  
**What had you learned**  
**What are the contributions of your thesis?**
  - 7a. to knowledge?
  - to other researchers?
  - to industry?
- 8. How do your contributions generalise?**  
To what extent would they generalise to systems other than the one you've worked on?
- 9. What do you know about the history of X?**  
What is the current state of the art in X? (capabilities and limitations of existing systems)
- 10. How do scientists/philosophers carry out experiments?**  
What techniques are commonly used?  
Where do current technologies fail such that you (could) make a contribution?
- 11. What are the recent major developments in X?**
- 12. What did you do for your MPhil, and how does your PhD extend it?**  
**Did you make any changes to the system you implemented for your MPhil?**
- 13. What are the strongest/weakest parts of your work?**
- 14. What are the alternatives to your approach?**

- 16a. What do you gain by your approach?  
 16b. What would you gain by approach X?
- 15. Looking back, what might you have done differently?**  
 (main answer for differences)  
 Why didn't you do it this way (the way everyone else does it)?  
 Why have you done it this way?
- 16. How have you evaluated your work?**  
 18a. Intrinsic (action that is essential) evaluation:  
     18ai. and how well it performs?  
 18b. Extrinsic (action that is not essential) evaluation:
- 17. How would your system cope with bigger examples? Does it scale up?**
- 18. How could you improve your work?**
- 19. What are the motivations for your research?**  
 21a. Why is the problem you have tackled worth tackling?
- 20. What is the implication of your work in your area?**  
**Can learning help both redrafting regulation and in implementation**  
 Under what circumstances would your approach be useable? (when it usable)  
 What does it change?
- 21. How do/would you cope with known problems in your field?**
- 22. Have you solved the field's problem that you claim to have solved?**
- 23. Where will you publish your work?**
- 24. Which aspects of your thesis could be published?**
- 25. Has your view of your research topic changed during the course of the research?**
- 26. Is your field going in the right direction?**  
 How do you know that your algorithm (sequence of instruction)/rules are correct?  
 How do you expect X to progress over the next five years?  
 How long-term is your contribution, given the anticipated future developments in X?  
 You discuss future work in your conclusion chapter. How long would it take to implement X, and what are the likely problems you envisage/predict?
- 27. How victims' involvement influence decision making?**
- 28. Transferable lessons**

### General Questions

- ***What you did in your country? Introduce yourself***  
 I received a degree in building technology and masters in housing studies. This research is intentionally further develop from my masters thesis in actors perceptions towards the housing development process in the Penang state. Both research at masters and PhD level are the result from the national plan to achieve 2020 vision as a developed and industrialise country. Now I'm attaching with the University of Science, Malaysia. Before that I worked in the construction industry for about 5 years. I had been in the technical and administration level related to construction work at that time. My last job was the Research and Development Manager. I had to lead a team of staff to produce reports, proposals, working papers and related works. At the same time I get involved in volunteering work. The most challenged task while doing volunteering work was in the year 2005. My 1<sup>st</sup> hand experience while Tsunami struck inspired me the most in doing this research. I realised that there are still scopes of improvement both in planning and training for those in the front line and to the victims.

*Where did your research-project come from? How did your research-questions emerge?*

There were efforts in implementing full regulatory compliance in the National Disaster Management Mechanism after I looked back in the Malaysian experience. The implementation is not according to plan because of the implementation of regulatory compliance will probably involve making changes to what are considered as barriers to the present department environments, and these changes will have to be based, to a large extent, on how actors' perceive and judge the introduction of regulatory compliance implementation. From local experience in Malaysia, recent work in public officers behaviours proposed that studies should been done to understand barriers that inhibit behaviour change not only from the private officers but also the public officers. Research question emerged



from the issues pertaining in the topics studied that conclude in the introduction at the beginning of Chapter 2, Chapter 3 and 4.

- ***What do you get from here/Northumbria University?***

The 1<sup>st</sup> day at this university I was a bit nervous because do not know yet the team of supervision. After I met them they are so professional, supportive and cheerful. Most of the event occurred in no tense environment. I was introduced to the Disaster and Development Centre, research trainings, registered as a member with professional bodies (RICS, CIAT, ABE, and CIH-network organisation of development from Disaster network, Development Areas Research Network, North East Housing, SPHERE Project, ADPC, Humanitarian Policy Group/ODI), writing articles, attending workshops, courses and conferences. I was ready for my mid point progression after about a year started my PhD and sent off to field trip in Malaysia for 6 months. One of my biggest achievements here yet is to receive the Provention Consortium Grant and then the International Student Award.

- ***What do you plan to do back in Malaysia?***

I am bonded with University of Science, Malaysia for 5 years in return of financial support for my PhD here. They spent a lot of money for me to study here. The sooner I can complete my study less burden to my government. As a top university in Malaysia, University Sains Malaysia receives lots of research grants from the Malaysian Government and International Institutions. Besides of giving lectures, I will be active in doing research. I even plan for my academic expansion by taking post doctorate in the future. At the same time, dissemination work will keep on going.

### **Specific Questions**

1. ***What is the area in which you wish to be examined?***

As we can see from the research title, the key area is in disaster management. My research focus on the attitudes to regulation and compliance, of government officers, that I called actors in the National Disaster Management Mechanism in providing emergency housing in Malaysia.

*How does your work relate to X?*

This research intentionally further develop from my masters' Thesis (title: Housing Development Process in the Penang State, Malaysia: The Actors Perceptions) towards the Vision 2020 with a 'clean, efficient and effective' government administration as the authorities elected. The keyword in regulatory compliance is effectiveness of authorities' enforcement. Therefore, the nature of institution and behaviour of authority is significant to compliance with the emergency management programmes. Research in building a better foundation for understanding behaviour is a necessary step before trying to improve public policy implementation because the public perception of risk strongly affecting the actors involve in the National Disaster Management Mechanism. Therefore, an informed public can be a major ally because awareness can lead to action, including pressure on legislators and other policymakers.

2. ***In one sentence, what is your thesis?***

I collected actors' views towards the implementation of disaster management policy in Malaysia through surveys and in depth interviews.

*In open explanation*

I live in Malaysia. Inspired from my previous experience in emergency housing, I decided to do research about how the authorities in the National Disaster Management Mechanism respond to the intention of implementing full regulatory compliance. Malaysia is not a developing country but not yet a developed country. Developed country has establishing compliance culture, but not in Malaysia. Malaysia has a policy in disaster management. Unfortunately the effectiveness and commitment from the enforcers is decaying from central government to district and from professionals to local people. The problem was that the actors received very little information about this implementation. The actors are knowledgeable about their own scope of work but not to the information regarding MNSC Directive 20. Consequently, non-compliance occurs; for example, from my observation at site authorities can provide 3 bedrooms as required by building standard but the size is not adequate. I hope I can highlights shortfalls in provision, training and awareness, and to recommend ways of improvement. At the end, I can reveal the status of implementation and why it is still not implemented successfully and how to overcome the problems.

### 3. *Key conclusion from literature*

Available literatures suggest that non-compliance within disaster management institution continues to occur (Dynes, 1993). Things will get worst if the response become highly politicised not according to international activities and only 40-60 per cent of authorities committed to contribute in recovery period (Davis, 2007). Quarantelli (1984) who identified that a disaster planning as 'a process' rather than a tangible product because disaster itself are failure of social system as mentioned by Dynes and any development at that time can be seriously damaging (Allen, 1990) as a result from the communities who give very low priority to disaster planning and actions. Hutter (1989) and Meidenger (1987) suggested that this sociological culture become a central study of administrative regulation in order to rectify what is problematic that should focused on how organisational routines, the attitudes and values of bureaucrats shape governmental actors that predominantly influenced by a institutional cultural approach. The issue is that the meaning of culture remains quite unclear because culture is a complex construction of organisations, consisting of attitudes, perceptions and values and belief. In Malaysia, organisational error and regulatory failures were found to contribute to how the public service behaves far from the main objective of any regulations that is regulatory compliance (Aini *et al.* 2006). Nurturing a compliance culture, an attitude of the organisation is what values compliance goal at the end (Braithwaite, 1993). Compliance goal will determine compliance culture. Therefore, there is a necessity to understand behaviour as a better foundation before trying to improve public policy (Cohen *et al.* 2000). A person attitude will determine what the person will hear, think and do about the object (Allport, 1973). It is a significant to include peers' opinion and the significant of social influence in determining key variables in attitude to compliance (Tyler, 1990).

*Which are the three most important papers in X?*

These are not the most important in the field but to me they provide the most relevant guide in this research:

- 1) Quarantelli, E. L (1984): Organisational Behaviour in Disasters and Implications for Disaster Planning.
- 2) Meidinger, E. (1987): 'Regulatory Culture: Theoretical Outline'.
- 3) Aini, M. S., Laily, P., Sharifah, A., H., Zuroni, J. and Norhasmah, S. (2006): Sustainability knowledge, attitude and practices of Malaysians.

*Who are the main 'players' in X?*

*They are clustered in the specific topics*

- 1) Attitudes: Stalberg, Frey and Allport
- 2) Behaviour in Disaster: Quarantelli, Fritz, Tyler and Dynes
- 3) Effective Regulation: Parker
- 4) Regulatory Compliance: Hutter, Gunningham, Braithwaite, Ayres and Johnston
- 5) Regulatory Culture: Meidenger
- 6) Technical and Regulation: Crawford and Saunders
- 7) Emergency Housing and Development: Quarantelli, Corsellis, Barakat, Davis, Foong, Lizarralde and Aysan
- 8) Disaster Management: Aini, Shaluf, Faku'l-Razi, O'Keefe, McEntire, Allen and Drabek
- 9) Malaysia Administration: Mantogmary, Quah and Sarji
- 10) Workplace Regulation: Cunningham
- 11) Questionnaire and Interview Design: Openheim
- 12) Quantitative and Qualitative Combination: Creswell and Yin

### *Key Literature Review*

(Dynes, 1993): Non-compliance within disaster management institution continues to occur, disaster itself is failure of social system.

(Davis, 2007): The response becomes highly politicised not according to international activities.

(Quarantelli, 1984): A disaster planning as 'a process' rather than a tangible product.

(Hutter, 1989 and Meidenger, 1987): Sociological culture becomes a central study of administrative regulation.

(Aini *et al.* 2006): In Malaysia, organisational error and regulatory failures were found to contribute to vulnerability.

(Braithwaite, 1993): An attitude of the organisation is what values compliance goal at the end.

(Cohen *et al.* 2000): there is a necessity to understand behaviour as a better foundation before trying to improve public policy.

(Allport, 1973): Person attitude will determine what the person will hear, think and do about the object.

(Tyler, 1990): Actors perception is significant to include peers' opinion.

*Who are your closest competitors?*

Quarantelli, Enrico Louis, with 29 books, 259 works in 330 publications. He is the specialist in collective behavior, social movements and social change, mass communication, field research techniques, complex organisations, sociology of knowledge and science and popular culture. The E. L. Quarantelli Resource Collection in DRC, Delaware University contains the world's most complete collection on the social and behavioral science aspects of disasters. The second competitor with a new approach in the 3<sup>rd</sup> world is Gonzalo Lizarralde from IF Research Group, Montreal University. He is the analysis expert of the relationships between planning, design and construction processes especially in project management and organisational system. Unfortunately, there is no such competitor locally in my country.

*What do you do better than them? What do you do worse?*

I understand more in local scenario and worked as a volunteering worker and still. The only thing is that I am lack of academic and fieldwork experience.

**4. Summarise your key argument/findings.**

Concerning in summary that the main negative attitudes due to the fact that only 18 % had accepted the implementation positively. It is essential to recognise them as the barriers to improving enforcement of regulation on emergency housing. These findings necessarily have direct relevance to further development in Malaysia because actors are actually willing to support the implementation if they are provided with enough support in terms of resources, training, exposures and incentives. The MNSC contents are suitable and practical to implement at the department level but not to the actors and victims and reveals that policy delivery system is not yet effective enough.

*What do your results mean?*

It needs to consider that actors could not reasonably be accused for having this negative attitude. They need to be convinced that regulatory compliance is a good effort for the benefits of the actors and the victims. They need informative advice and guidance to enable them to see the very probable societal benefits that can lead towards regulatory compliance development. Actors might be persuaded to accept regulatory compliance, cannot simply be expected them to accept the programme without any changes made in the present department settings or as regard to their working condition status. There is no doubt that actors would expect to see triumph over barriers and additional input in the form of increased resources and extra supports, especially in working assistants.

**5. What are you most proud of, and why?**

This research encouraged me to study multiple fields of studies. Literature works been done in this research emphasised the issues from the past to the most recent that relate to the international scenarios as the developed countries to the local situations. This research is important because research in providing shelter is the most important in emergency relief work due to land ownership issues. Furthermore, the root of the disaster problems are poverty and underdevelopment that been covered in this research. This research also covers issues that are commonly related to most disasters situation (e.g. dangerous location of building, improper construction, cultural attitudes about development, political preference). At the end, I could discover central premises, subject matter, triangulation technique in methodology and revealed actors' biographical data. The reason is back to the reason inspired me to do this research; I hope to highlight shortfalls in provision, training and awareness, and to recommend ways of improvement. From the findings summarised I am proud and believe that I achieved it that revealed the status of implementation and why it is still not implemented successfully.

**6. What's original about your work? Where is the novelty?**

There is lack of recent information available on the opinions and attitudes of actors in regulatory compliance and emergency housing. Much past research has focused on levels of compliance and

quotes in an organisation rather than understanding of attitudes towards regulatory within the context of emergency housing in the public sector in Malaysia. The research shows the results of actors' perceptions to the MNSC Directive 20 particularly in the public service sector that has never been done before in Malaysia. Information collected generated from the key variables that include peers opinions and social influence. Furthermore, key recent practice focuses on regulatory compliance is not in prescriptive rules or command and control anymore rather the outcomes of regulatory aims that match with business goals and some political interest that were highlighted in this research. The perceptions gathered were purely from the actors who are involve only in emergency housing as result from biographical data.

#### 7. *What have you done that merits a PhD?*

My investigation provides insight and understanding the attitudes of actors to phenomenon of regulatory compliance with disaster management policy particularly in providing emergency housing in the Malaysian context. By using triangulation technique I could develop methodologies combining quantitative and qualitative as a result from literature reviews and survey experience. This clear conceptual framework I believed as the key contribution in configuring the answers to the hypotheses and research questions. From literature review also, identification of the **subject matter** (no. 10) and the **central premises** (no. 13) were cleared in order to configure key instrument of this research work.

#### *What do you learnt?*

I learnt a lot in networking and extension of research works and also familiar with research environments. Now I am able to consider research problems, design, execute and assess methodologies in research, formulate new hypotheses and ideas, and discuss my research with colleagues including other stakeholders in the field. At the same time I have confidence in written and verbal communication towards the issues in my field, have an understanding of key issues such as supervising junior staff and students, broad aspects of my field, relevant methodologies, seeking funding, publishing, and some knowledge of intellectual property, public opinion and engagement, careers and opportunities in my field and most importantly work independently.

#### *What are the contributions of your thesis?*

Generally, this research provides thorough analysis of the views and perceptions of officials in Malaysia towards the implementation of regulations as set out in the MNSC Directive 20 with respect to emergency housing standards. Actors' view toward the implementation of full regulatory compliance will inspire the government and related agencies to design a holistic organisation that perhaps will diminish negative disaster likelihood as the nations' progress. The outcome of this research reveals the reasons why it is important to ensure that policy makers have to be responsive and have a grasp on current research findings in particular to the subject of policy implementation status.

#### *to knowledge?*

The aim of a disaster response is to restore normality as quickly as possible and a reduction in the loss of life and the prevention of human suffering. At the end, victims can stand on their own feet. However, the real world of disaster management in Malaysia is complicated and there are constraints/barriers that cannot be ignored as revealed in this research. It was suggested that depoliticise in recovery planning and decentralised by the government may be best serve in implementing policies. The current level of acceptance towards regulatory compliance, barriers mentioned and changes suggested by actors in this research should be able to help personnel involved in regulatory compliance implementation to undertake some necessary changes to ensure that regulatory compliance gets off on the right track. The government and public are aware about the status of achievement in MNSC Directive 20 from the findings presented in this research. This research outcome can be used to develop a strategy and actions that include awareness raising and capacity building for enhancing enforcement of current legislation. The on going process of social learning might enhance the quality of the present Mechanism of Disaster Management in Malaysia. There is no specific document or reference can provide list of actors those who are involve directly in providing emergency housing in Malaysia. As a result of biographical data, I can reveal list

of actors involve in emergency housing. However, the list is not in the writing in this research because not the intention of this research to expose the identity of respondents.

*to other researchers?*

Ideas and recommendations in finding new solutions to old problems can move upwards as well as downwards due to the technical design in rules and regulations. Researchers can benefit from the output of this research.

*to industry?*

The accusation is not only on actors but also the policy makers. Extra attention should be given in areas highlighted in the discussion and recommendation. Malaysia is on the right track in providing adequate, affordable and decent housing as mentioned in the national housing development policy and Vision 2020. Therefore rectifications in actors' attitudes mean a lot in terms of delivering successful national policies.

**8. *How do your contributions generalise?***

*To what extent would they generalise to systems other than the one you've worked on?*

The findings are applicable that is unique and not amendable or transferable (uniqueness is that the findings would be the same if the research was repeated in a similar context. Meanwhile, not transferable is the findings' are not fit into contexts outside the study situation that are determined by the degree of similarity). The outputs from the focus group are also the example of attitudes of typical public sector community in delivering government policies.

**9. *What do you know about the history of X?***

Definitive conclusions to define the concept of a disaster have not been generated till now and the complete disaster prevention is ultimately unachievable. Furthermore, it is true that there is no agreement on what represent universal disaster response effectiveness. Academically, the studies about disaster management started in 1920 from the dissertation by Samuel Prince's that he investigated the response in 1917 Halifax shipping explosion. In Malaysia, in terms of national security, resulted from racial riot, National Operation Council was the main reference in 1969 to implement security measures. In providing housing, after independence day, the Municipal Building by Law was found outdated but updating work been carry out from time to time until the last amendment called Uniform Building by Law in 1984. This UBBL is become one of the main reference in providing emergency housing together with other international and national guidelines.

*What is the current state of the art in X? (capabilities and limitations of existing systems)*

The issue of government responsibility is in competing values as assurance role as the government and ideological positions in public welfare versus free market in order to balance both competing values and ideological position. In order to suit the demand from internal and external environment, guidelines in handling disaster in Malaysia is base on the official document called 'The Policy and Mechanism on National Disaster and Relief management' In this Policy under the MNSC Directive 20 clearly stated guidelines on the management of disasters including the responsibilities and functions of the various agencies under an integrated emergency management system within the scope of national and international legislation. The control of operation is in Putrajaya called the Malaysia Disaster Management Council. Information management system in use is called the Natural Disaster Data and Information Management System (NADDI) in Malaysia Centre for Remote Sensing (MACRES) in Kuala Lumpur. The system depends much on information technology and judgment from human behaviour that is subjective to measure.

**10. *How do scientists/philosophers carry out experiments?***

The writers that trying to experience the world from the participant's point of view usually involves qualitative studies because of these forms of data results from an attempt to specify the quality of the relationship between two or more things. Researchers in doing qualitative research had little control over the events and the study required a contemporary focus within a real life context. Researchers in this are chose to do qualitative research because they know little about a group of people or phenomena. Compared to quantitative, these forms of data results are from an attempt to quantify the relationship between two or more things. Both methods were found as relevant in order to achieve the aims of this research.

*What techniques are commonly used?*

Much of the recent scholarship in enforcement and compliance focused on how organisational routines, the attitudes and values of bureaucrats shape governmental actors. Enforcement and compliance are measured with reference to such factors as commitment to regulatory objective and attitudes to compliance toward effectiveness. Key variables determining compliance includes peers' opinion and the extent of social influence on individual encounters. Therefore, collecting actors views through surveys and in-depth interviews were considered as relevant in doing this research. In disaster management and social studies, researchers would prefer to do field work to be part of the **subject matters** in this research that identified as an attitude by the actors. Individual behaviour in a particular setting is affected by an individual's initial emotional or normative state and then by direct experience with others in a specific setting. Attitudes depend much on what people do together to respond in an organised fashion to the crises of disaster and on the continuities between pre and post-disaster of social organisations.

*Where do current technologies fail such that you (could) make a contribution?*

There is no technology can measure human psychological behaviour especially in attitudes. It is an abstract in nature and thus, it cannot be measured directly, but there are methods in research might be used especially in this research to measure attitudes by his/her opinions or beliefs about the attitude object (as shown in quantitative analysis) and level of regulatory compliance (as shown in qualitative analysis). One of the major problems confronting scholars in the field is the inability to define subject matter that been translated in this research. After thorough literature reviews and surveys experience I found out that attitude appears as significant in influencing actors' behaviour in regulatory compliance.

**11. *What are the recent major developments in X?***

Lately, the Sphere is revising the Sphere Handbook in the new guidelines in providing emergency housing. The revision process will run from May 2009 until March 2010. At the same time, Sphere is announcing latest update to keep stakeholders aware in relation to humanitarian actions (e.g. companionship with INEE Secretariat in October 2009 to further develop ways not only educating victims but also meet the needs and rights of populations affected by crises). Humanitarian Policy Group, (ODI) is also look into the matter of a good humanitarian government as vital with emphasise in the role of the affected state in disaster response in 2009 report. Chartered Institute of Housing Conference held in Harrogate in June 2009 emphasised in regulatory compliance towards zero carbon and sustainable development. Even, the Asian ministerial conferences on disaster risk reduction represent a high level forum for Governments to reaffirm their commitment to the Hyogo Framework for Action and exchange practical ways to implement effective disaster risk reduction at the national and local levels and move towards sustainable development. Meanwhile, the International Sociological Association's International Housing Conference 2009 was held in September in Glasgow to answer the question of housing as globalise commodity or is it fundamentally local? (the issue is due to housing credit and its human impacts on communities and different spatial scale). The United Nations Global Research Network on Human Settlements annual meeting is being hosted by GURU in September 2009 to debate the contents of the 2009 Global Report on Human Settlements. In Malaysia, CIBD is introducing the Q-lassic in August 2009 in order to assure the quality in building construction and development from a better way of enforcement and evaluation. Q-lassic is the scoring system to measure and evaluate the quality of workmanship of a construction based on relevant approved standards. Even the government of Malaysia tries to enhance relationship between multiracial by launching 1Malaysia that hopefully boost strategies to achieve the national 2020 vision.

**12. *What did you do for your MPhil, and how does your PhD extend it? Did you make any changes to the system you implemented for your MPhil?***

This is an exploratory research to get an in depth understanding towards the issues. The focused on the literature underpinning the Thesis aims and develops methods by combining quantitative and qualitative. At the same time, hypothesis and research questions establishment been done in mid point progression. At the end of my work, I managed to demonstrate the results that match my hypothesis and answered all of those research questions. Due to clear objective and aims, less amendment been done when it come to identification of additional themes as a result from surveys experience. It was a challenging task to analyse qualitative data as extracting rich information to

determine beneficial patterns and to build a framework vision of it in order to arrive at the essence of what this information claimed. Theme number 15 has something to do with The Vision 2020 that will benefit the public service sector in order to increase work ethics and at the same time produce the caring feeling to the public.

**13. *What are the strongest/weakest parts of your work?***

A theory that tries to explain everything may run a risk of explaining nothing at all. Therefore, it is important to clarify the subject matter as described before (no. 10) and the **central premises** in this research. The central premise is that regulatory compliance by the authorities called the actors to the programme in MNSC due to their crucial participation towards the implementation. As a result, the strongest part was that the research covers all possible actors involve directly in providing emergency housing as a result from biographical data in surveys phase to support the model of trustworthiness in doing this research. Only actors involve in emergency housing so called as the focus group were interviewed from the convenience samples in phase 1 with no restriction on who was included in the sample but still under the sample framework. They were all been chosen from the Malaysia Disaster Management Mechanism. The weakest part might be that the actors tried to make it safe and low profile in given their honest answers both in surveys and in depth interview to protect their own interest that resulted to the predictable answers. The participants could only report their personal perceptions that were limited to their own understanding and by the emotional that might lead to inaccurate answer or over emphasised issue. In order to overcome these weaknesses, qualitative method was chosen that hopefully can produce evidence (barriers, suggestions) to illuminate and articulate the findings established by the questionnaires to support aspects especially those concerning negative aspects or feelings towards the issue.

**14. *Where did you go wrong?***

There is no single technique that could claim a monopoly on inference in choosing methods of doing research. For the purpose of my research, I did started my research with quantitative studies first that is normally considered as secondary or deductive then followed by primary that is qualitative. I did not consider this as a go wrong part rather than triangulation strategies in theoretical and methodological because combining difference paradigm in one research. Phase 1 as the macro level providing general description followed by phase 2 as the micro level providing in depth evidence towards the issue.

**15. *What are the alternatives to your approach?***

As we can see from the design of my research, I choose to combine both quantitative and qualitative by using triangulation approach in all phases. I had to do this because there is no official document can reveal the list of actors in providing emergency housing. I had to get the general perception about the policy implementation and at the same time ascertain biographical data for the next phase to get significant answers from those who are really involved in providing emergency housing in Malaysia.

**15a. *What do you gain by your approach?***

It is a question of not interviewing the most important individual, but the right person. I could now capture the prospect that might escape from broader surveys systematically and reliable from the actors purely involve in emergency housing.

**15b. *What would you gain by approach X?***

The focus group approached were the right actors that could give the answer towards the issue.

**16. *Looking back, what might you have done differently? (main answer for differences)***

This research been done according to the recent practice that focuses on the outcomes of regulatory aims, business goal and some political interest besides of prescriptive rules or command and control. As a result, 2 phases of investigation involved in order to get general opinions of beliefs about the attitude object then followed by measuring level of acceptance of implementation from specific actors in regulatory compliance. Phase 1 is very important that include biographical variables. This information is vital to ascertain the Malaysian actors' background characteristics known as the focus group. This information then was used as guidelines for selecting respondents for the qualitative

approach. The information collected was based on peers opinion and social influence rather than personal individual opinion only. In terms of application, I tested the theories first in quantitative studies then followed by developing theories from the themes in qualitative studies. Normally, the qualitative is the phase to generate hypotheses and theories that could be verified later on in a quantitative (confirmatory) section of the study. The quantitative part could be used for generalisation of qualitative findings. Both methods are important in order to keep the standard of verification high because only conclusion from deductive (quantitative) research has high reliability and thus support claims of generalisability. Conclusion from inductive (qualitative) research display high validity. Quantitative and qualitative can complete each other by supporting and conformity.

*Why didn't you do it this way (the way everyone else does it)?*

It is going to be complicated and confusing if I go straight to the field and get the information from the entire department in Disaster Management Mechanism in Malaysia. Researcher can understand more the issues pertaining in the field before personally interview the focus group especially the reason not clear in phase 1. In additional, I could identify the potential actors and introduced myself from the beginning of my data collection process for the next phase and dissemination work.

*Why have you done it this way?*

Not all the actors in Disaster Management Mechanism in Malaysia involve directly in providing emergency housing. Furthermore there is no official document or information about the list of actors involve in emergency housing. Biographical information were used as an instrument to select the exact actors for the next phase in order to get the required answers to the reason not cleared from phase 1. The next phase is the micro level that was the interviews to produce evidence (barriers, suggestions) to illuminate and articulate the findings established by the questionnaires to support aspects especially those concerning negative aspects or feelings towards the issue.

#### **17. How have you evaluated your work?**

Two types of evaluation involve

17a. *Intrinsic (action which is essential) evaluation:*

A Model of Trustworthiness was chosen and rigor to make sure tightness of verification and standard of quality in overall phases of research design. This model is based on the identification of four aspects, namely: truth value (consent letter and respondents volunteered to get involve), applicability (all of the public service actors in every department in Disaster Management Mechanism in Malaysia), consistency (the methodology and findings presented directly without repetition) and neutrality (non-bias).

17ai. *and how well it performs?*

From credibility test (reliability and validity);

Reliability: The internal reliability coefficient of the survey general attitudinal scale was calculated as +0.96 as close to 1,

and validity: All the items in questionnaire design will be based on the analysis of the literature been supervised by experts in the topics and pre-tested in pilot study.

17b. *Extrinsic (action which is not essential) evaluation:*

Only conclusion from deductive (quantitative) research has high reliability and thus support claims of generalisability. Conclusion from inductive (qualitative) research display high validity. Quantitative and qualitative can complete each other by supporting and conformity.

#### **18. How would your system cope with bigger examples? Does it scale up?**

89% of populations in Asia were affected by disasters since the past 20 years. Attitudes and regulatory compliance in the context of public service community in disaster management community might be used as an indicator to other public service sectors.

#### **19. How could you improve your work?**

My work might improve if I can acquire more fieldwork and academic experience by getting wider networking from local experts and other third parties such as community leaders and manufactures in



housing development. Researcher also should engage key stakeholders surveyed in developing such a strategy that should include awareness raising and capacity building.

**20. *What are the motivations for your research?***

As I explored these issues further, I was aware that, although sufficient regulation existed, regulatory compliance was low. I wished to explore why there was a gap between regulation and performance. I would like to know the status of this MNSC Directive 20 implementation. Besides that, my vision is what motivates me in doing this research. The short term motivation is while I'm doing this research. The long term is when I go back to my country as a lecturer after get a proper recognition from here I hope. I enjoy the dynamics of learning process from undergraduate to postgraduate and hopefully to the post doctorate. Moreover recently, political atmosphere in Malaysia is not so convincing. Some people say that politics will bankrupt the nation in the way to gain support (e.g. charity, donation). The world economy recession makes the people around the world put the blame to the government. I have to go back soon in Malaysia to contribute something at least to my community.

**20a. *Why is the problem you have tackled worth tackling?***

Instrument in combining both methods that is triangulation, biographical data, the identification of the subject matter and central premises take me a lot of time and effort to configure that was the main contribution to my research work.

**21. *What is the implication of your work in your area? Can learning help both redrafting regulation and in implementation***

The findings from this research might attract the interest of stakeholders especially those who would like to know the status of achievement in MNSC Directive 20. Presently, Malaysia is still in the phase of restructuring and reorganising the National Disaster Management Mechanism to fit in the HFA and ISDR Programme. These research outcomes can be used by the decision makers, authorities and NGOs to develop strategies and actions that include awareness raising and capacity building for enhancing enforcement of current legislation. The findings of this research might give inputs in designing and planning the national policy and disaster management framework by restructuring and reorganising the present Disaster Management Mechanism in terms of enhancing coordination of responsibility between and within the government bodies in National Disaster Management Mechanism.

***Under what circumstances would your approach be useable? (when it usable)***

The decision making circle in Malaysia starts with social learning process. In every project delivered by the authorities, there will be a project report and evaluation. The output from this research is considered as trusted sources due to thorough and reliable primary and secondary data resources and considerations that might become as reference to the stakeholders. Furthermore, the ongoing dissemination work might attract the attention of decision makers and policy makers. As one of an established academic institution in Malaysia, Science University is always invited officially in giving consultation in implementing new policies and legislations.

***What does it change?***

The intention in providing emergency housing not only to satisfy the victims but also to please the actors in carrying their daily job that hopefully resulting to positive actions.

**22. *How do/would you cope with known problems in your field?***

Keep updating with new information from articles, attending workshops, and conferences and also establish networking (RICS, CIAT, ABE, CIH-network organisation of development from Disaster network, Development Areas Research Network, North East Housing, SPHERE Project, ADPC, Humanitarian Policy Group/ODI), especially with local experts. At the same time, keep alerting with neighbouring countries approaches in handling disaster impact, NGOs assistance and efforts from other ministerial level. I hope through my dissemination strategies, the actors, victims and stakeholders are aware about the risk they are facing today and in the future. The feedback receive will be reconsidered for the future research efforts. The establishment of long-term relationship with the present research team and experts even after this research work.

**23. *Have you solved the field's problem that you claim to have solved?***

Yes. This research is not trying to proposed new model or approach in regulatory compliance. This research tries to configure the status of achievement in implementation and why it is still not implemented successfully.

**24. *Where will you publish your work?***

5 articles written is ready waiting for the manuscript to be sent to relevant Journals: 1) The Attitudes of officials on Compliance with Disaster Planning; the case of the Malaysian MNSC Directive 20; 2) Barriers towards the Implementation of Regulatory Compliance with the Disaster Planning Programme in Malaysia; 3) Social Learning in Regulatory Compliance Attitudes of the Malaysian Officials with the Malaysian Disaster Planning Programme; 4) Post Disaster Housing in Malaysia: A Literature Reviews; and 5) A Literature Reviews on Evolution of Disaster Planning in Malaysia. Potential Journals to be submitted are:

1) Asian Journal of Environment and Disaster Management (AJEDM), 2) Disaster Prevention and Management, 3) Journal of Humanitarian Assistance, 4) Journal of Public Administration and Management, 5) Social Science Research Network, 6) Journal of Contingencies and Crisis Management, 7) International Journal of Mass Emergencies and Disaster, 8) International Review of the Red Cross, 9) Journal of Emergency Management

**25. *Which aspects of your thesis could be published?***

The aspects are most probably in methodologies, findings, social learning and barriers in regulatory compliance implementation.

**26. *Has your view of your research topic changed during the course of the research?***

Only research title keeps changing for 4 -5 times. The topic never changed.

**27. *Is your field going in the right direction?***

Yes, because researchers, academicians, authorities are more concern in providing accommodations and amenities to protect the rights of the victims. At the same time they forget about the perception that shape behaviour of the actors that playing an important role towards the success to deliver any policies especially towards the 2020 vision. Malaysian direction in providing accommodation is clear and on the right track. Even the central recent reviews in the Global Report on Human Settlements 2009 discusses constraints and conflicts and identifies innovative approaches that are more responsive to current challenges of housing settlements providing (particularly in developing country). Furthermore as one of the United Nation country and agreed to support all of the programmes consigning by the international treaties, I am confident that the field in this research is going in the right direction.

*How do you know that your algorithm (sequence of instruction)/rules are correct?*

The hypotheses tested were matched and most findings especially in relation to the international context were consistence with the core literature reviews.

*How do you expect X to progress over the next five years? How long-term is your contribution, given the anticipated future developments in X?*

The concern is increasing in regulatory compliance especially towards sustainable development. Even most themes of discussion amongst scholars are towards the matter. The issues in emergency housing and disaster management never end and I hope I can play my part as an academician here especially in educating the public regarding how important compliance and regulations are.

*You discuss future work in your conclusion chapter. How long would it take to implement X, and what are the likely problems you envisage/predict?*

This is an on going process towards the effort to make things better. As the matter of fact, Malaysia is serious about the vision 2020, to become an industrialised and developed country. The direction is for the public service reform with clear emphasis on the development of a clean, efficient and effective administration. It is not easy, even if Malaysia can not achieve it on time, the mission is definitely the same to upgrade the standard of service to the people. To consider it as up to other world class standard, the Malaysian must have strict working ethics towards regulatory compliance. This **culture** then will shape behaviour to the members and the success of the organisation is best achieved by ongoing compliance with regulatory goals. However, the problem is that besides of

multiracial and religious demands, how far the flexibility is permissible in the process of regulatory compliance and what aspects to give priority when it comes to regulatory aims and situational based on the theory of the good regulatory practice in Malaysia.

**28. *How victims' involvement influence decision making?***

Recovery is not just in physical appearance in order to restore normality. The principle in any development from disasters focus on the crucial participation from affected communities in order to study how to provide income generation, rebuilding social support networks, activities essential for maintaining cultural identities and reviving and conserving the often protective but vulnerable ecosystem. Therefore, people should be centrally involved in planning the recovery and rehabilitation of their own communities. Assessments of needs should be based on the expressed priorities of affected communities. For example, background of the place (majority ethnic and religion; history; attractions and income generation).

**29. *Transferable lessons***

The question is that what stakeholders should learn from the ineffectiveness implementation of existing policies and approaches. And why are they always an issues rather than acted upon? Stakeholders should get the act together to think beyond organisational or agency boundaries to deal effectively with most problems. Policy makers should account and measure what matters especially in assessing the needs from victims and realistic about any evaluation. Therefore, policy makers should consider who policy is for from central government to local delivery agents, and from professionals and service delivery to communities and service users. Support also may come from a good community leadership with good personalities and other local condition such as their own skills, dedication and experience. In addition, the sign of significant progress may take a long time to consider as full regulatory compliance. Hopefully the policy makers will be patient and persistent in delivering humanitarian work and policy making.

## **Appendix 5: Author's Published Articles and Forthcoming Publications Related to this Thesis**

Roosli, R. (2009) **Emergency Housing in Malaysia: Research on Attitudes to Regulation and Compliance** [Online] [http://www.sphereproject.org/component/option,com\\_docman/task,doc\\_view/gid,281/Itemid,203/lang,french/](http://www.sphereproject.org/component/option,com_docman/task,doc_view/gid,281/Itemid,203/lang,french/)

### **Project Summary:**

*This research focused on pre and post-disaster planning with particular reference to housing. A review of the existing research and practice in Malaysia including the structure and attitude of central and local government to risk was the starting point. Development assistance has a chequered history. Few would doubt that, at least at a local level and, quite possibly, more generally, it has had many successes, but its failures are also numerous. Gathered actors' perspectives in the implementation of regulatory compliance in all level of emergency management system in Malaysia; helps to explain the reason of regulatory compliance failures. Measuring their attitudes towards regulatory compliance reveals actual commitment. The regulatory compliance with the Malaysia National Security Council MNSC Directive 20 programme is a key focus. The research tries to assess attitudes towards and reasons for compliance and non-compliance with the regulations in the MNSC Directive 20 and to highlight the causes of any shortfall in understanding and applying the MNSC Directive 20. Actors had broadly negative attitudes towards regulatory implementation. These negative general attitudes were attributed by their negative thinking towards the level of knowledge and understanding regarding MNSC Directive 20. Actors aware of the many barriers and uncertainties hence do wish to see changes at the department levels before regulatory compliance is implemented.*

**Keywords:** Emergency Housing, Disaster Management, Attitudes, Regulation and Compliance

Roosli, R. (2008) **In-depth Research on Attitudes to Regulation and Compliance**, Part of ProVenton Consortium Project Report.

### **Project Summary:**

*The analysis to test the Malaysian major hazard installations through the awareness and application of the Malaysian National Security Council (MNSC) Directive 20 revealed that 30 per cent of the safety, health and environment managers (respondents) unaware with the MNSC Directive 20 disaster management guidelines, and 62 per cent of the respondents believe that the MNSC Directive 20 is essential. Therefore, the authority that is responsible for the enforcement of the disaster respond relevant regulations should be vigilant and follow up the international standard to apply the relevant regulation, that suit the safety culture of Malaysia. This research was further actions particularly in emergency housing. This project aims to answer the questions: Do people care about the level of compliance in disaster assistance, or compliance with regulations? For the purpose of this project, compliance is measured with reference to such factors as: commitment to regulatory objectives, attitudes to compliance; quality of management; organisational ability to comply and treatment of staff. This project also uses attitude scales to measure attitudes of those involved with regards to compliance and regulations for people in crisis of disaster.*

**Keywords:** MNSC Directive 20, Emergency Housing, Disaster Management, Attitudes, Regulation and Compliance

**Vebry, M. and Roosli, R. (2008) Building versus Planning – A Working Paper**, the paper was presented in 29 February 2008 in general lecture at MSc Planning Programme, University of Moratuwa, Sri Lanka.

**Brief Summary:**

*This working paper simply elaborates the approach of planners in dealing with post-disaster rehabilitation and reconstruction both in Aceh and Sri Lanka. The discussion will explore how effective was the emergency planning process and the ability to cope with the critical needs on a timely fashion and deliver a spatial product as a basis for physical reconstruction. The next discussion will explore what comes out from the emergency planning, identified the results and consequences and ultimately foreseen what future challenges are and how we planners and practitioners can mitigate those issues practically.*

**Keywords:** Recovery, Rehabilitation, Reconstruction, Tsunami, Planning, Co-ordination

**Title: The Attitude of officials on Compliance with Disaster Planning and Housing Policy; the Case of Malaysia**

**Journal: Asian Journal of Environment and Disaster Management (Research Publishing Services)**  
**OR**  
**HABITAT International (Elsevier)**

**Abstract:**

*The failures in regulation and compliance were identified as the key vulnerability and disaster causes in Malaysia. The beneficiaries were actually unaware of non-compliance that exposed them to hazard. The MNSC Directive 20 exists as the important core of disaster regulation in Malaysia. However, the implementation is not according to plan and regulatory compliance was low. A research been done to highlight shortfalls in provision, training and awareness, and to recommend ways of improvement. Gathered actors' perspectives in the implementation of regulatory compliance at all level of emergency management system in Malaysia helps to explain the reason of regulatory compliance failures. Measuring their attitudes towards regulatory compliance reveals actual commitment because the implementation will probably involve making changes to existing barriers and on how actors' perceive and judge the benefit of it. The research uses both quantitative and qualitative methods together that involved 484 respondents. They have broadly negative general attitudes towards regulatory compliance, arguing that currently too many barriers are present in department levels to make regulatory compliance implementation straightforward. They need informative advice and guidance to enable them to see the very probable societal benefits that can lead towards regulatory compliance development. The research concludes by categorising obstacles that need to be overcome, to encourage actors to accept regulatory compliance and recommends changes to department structures, systems and practices prior to regulatory compliance implementation.*

**Keywords:** Attitudes, Disaster Management, Disaster Planning, Emergency Housing, Malaysia, Regulatory Compliance

**Title: Barriers towards the Implementation of Regulatory Compliance with the Disaster Planning Programme in Malaysia**

**Journal: The Australian Journal of Emergency Management**

**Abstract:**

*The implementation of full regulatory compliance in Malaysian Disaster Management Mechanism will probably come in the form of a directive from Prime Minister's Department<sup>1</sup> of Malaysia. The success or failure of regulatory compliance in Malaysia will depend to a large extent on the readiness of actors to accept responsibility to implement at every level. Undoubtedly some actors have reservations about accepting regulatory compliance. This reservation might be the key to the main issue towards implementation. Concerning the main negative attitudes as a result of a research on actors' perceptions about compliance with disaster planning policy in Malaysia, it is essential to recognise them as the barriers that would have to be systematically addressed by the Prime Minister's Department to minimise their negative effects on regulatory compliance implementation. Discussion about these barriers will then highlight sectors that the Prime Minister's Department should look into in order to get full support from officials as government machinery.*

**Keywords:** Attitudes, Barriers, Disaster Management, Emergency Housing, Malaysia, Regulatory Compliance

**Title: Social Learning in Regulatory Compliance Attitudes of the Malaysian Officials with the Malaysian Disaster Planning Programme**

**Journal: Disaster Prevention and Management (Emerald)**

**Abstract:**

*This paper argues that there are still many scope of improvement in planning and training for both actors and disaster victims in the front line of disaster management in Malaysia. Although the established ethos of Malaysia's public service sector has tended to be one of control from above, there is promise and virtue in seeking to promote a professional culture. Ideas and recommendations in finding new solutions to old problems can move upwards as well as downwards due to the technical design in rules and regulations has now to be accompanied by organisational design. It would be easy to feel overwhelmed by the immensity of the task that faces the work force, but it may well be from within the present resources of the human resource that the Prime Minister's Department may begin to seek some of solution to get support from actors in the Disaster Management Mechanism in Malaysia. The actors in public service sectors in Malaysia had a negative attitude towards disaster planning implementation because they are usually not familiar with the Standard Operational Procedure in handling land disaster management in Malaysia called the MNSC Directive 20. Social learning is about initiative of organisation and policy maker in learning through actor's interactions with others and through the knowledge and expertise of others. The MNSC Directive 20 document is not available for public scrutiny and restricted for reasons of national security that limits the policy effectiveness. Even then, documents were circulated for office use only. Learning from status of current policy implementation and suggestion will promote awareness raising and capacity building from inside of organisation.*

**Keywords:** Attitudes, Disaster Management, Emergency Housing, Malaysia, Regulatory Compliance, Social Learning

**Title: Post Disaster Housing in Malaysia: A Literature Reviews**

**Journal: International Journal of Disaster Resilience in the Built Environment (Emerald)**

**Abstract:**

*Malaysia is still in the process of reorganising and restructuring disaster management policy learning from the national and international experiences. This paper argues that providing post disaster housing must accommodate requirement in the national disaster management policy and parallel with the needs from international concern to the rights of disaster victims. International guidelines only present the legal context for the implementation of emergency housing 'responses' and do not represent or bind as a law. These guidelines outlined are based upon the consideration of law and human rights. It depends on local and national customary law. Analysis regarding policies and government instruments were more towards consulting federal governments. Malaysia is not a developed country and also not a developing country but more in the middle. Malaysia has a developed country approach in disaster management policy but with the implementation of developing country. Trends in housing policy are very similar in the developing countries after a disaster strikes without enough attention to the needs of disaster victims, depend much on local initiatives and imported technology. Compliance culture is also still not established in most of developing countries.*

**Keywords:** Emergency Housing, Housing Rights, Adequate Housing, International Legislations, Malaysia

**Title: A Literature Reviews on Evolution of Disaster Planning in Malaysia**

**Journal: Journal of Public Administration and Management (Oxford Journals)**

**Abstract:**

*This article reviews the literature concerning studies of international and national disaster planning and management in Malaysia. Focus of argument centered to the very classic evolution of disaster planning transformation from the notion of disaster represented as natural event and an 'act of God' (natural event that not preventable by any human agency) to act of social phenomena that emphasis comes to be on internal rather than external factors. Government as a social regime not only formulates a complete framework of disaster planning but also has to make sure the plan works throughout the whole cycle of disaster management (i.e. warning, preparedness, prevention and mitigation, recovery, ongoing relief and emergency response). It is essential to ensure close liaison between the body responsible for recovery and that concerned with disaster management (e.g. hazard assessment, relief and housing reconstruction). Learning can be used to develop a strategy and actions that include awareness raising and capacity building for enhancing enforcement of current legislation in order to ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.*

**Keywords:** Disaster Management, Disaster Planning, MNSC Directive 20, Emergency Housing, Malaysia

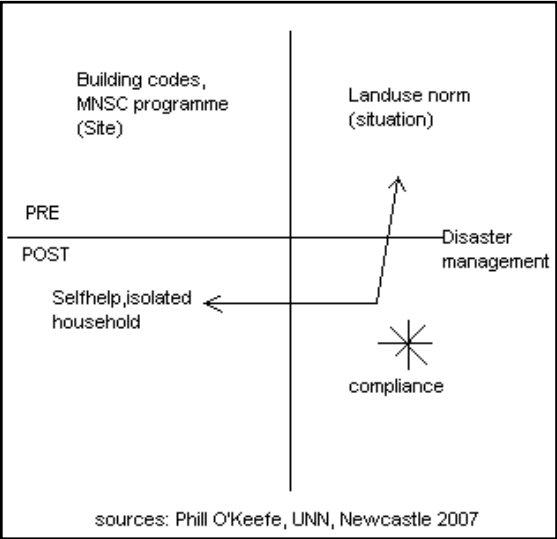
## Appendix 6: Comparing Reconstruction Pace across Countries

Country	Year & Disaster victims	Descriptions
Honduras	Hurricane Mitch devastated several Central American countries in 1998	More than 441,000 were displaced. Four years later, about 85,000 houses were rebuilt, but hundreds were still living in temporary shelters
India	The Gujarat earthquake in 2001 killed about 14,000 people	The recovery programme aimed to rebuild 214,000 houses; in the first two years 113,000 had been built (53 per cent)
Iran	In December 2003 an earthquake in Bam killed more than 30,000 and left 75,000 homeless	One year later, most people lived in pre-fabricated temporary shelters and only 5 per cent of the permanent houses needed were rebuilt
Japan	The Kobe earthquake killed 6,400 and displaced 300,000 in 1995	It took seven years to fully recover in terms of population, income, and industrial indices
Turkey	After the Erzincan earthquake in 1992	A government programme to build 3,600 houses didn't start until two years later
	Following the August 1999 Marmara earthquake (which destroyed 64,000 houses)	Government capacity for reconstruction had increased, and it took about three years to complete the bulk of the housing reconstruction
United States of America	Hurricane Ivan struck in 2004	In Florida some people are still living in mobile housing more than a year
Venezuela	The floods and landslides of 1999 displaced 80-100,000	More than one- third of them still lived in barracks/temporary shelters 8 months later. A year after the disaster, all of the displaced had homes; however many were pressured to relocate
Aceh & Nias	Tsunami & earthquake	80,000 – 110,000 new houses in Aceh needed and 13,500 in Nias, about 50,000 are housed in barracks; about 67,500 remain in tents, 16,200 new houses completed in Aceh and 200 in Nias, 13,200 under construction, 5,000/month new houses being built
Malaysia	Tsunami	Syarikat Perumahan Negara Berhad (SPN), the national housing corporation, has decided to build 1,066 houses on permanent sites : 900 in Penang, 126 in Kota Kuala Muda, Kedah, and 40 in Langkawi for the disaster victims at a cost of 62 million ringgit (16.13million US dollars). SPN will also repair 523 damaged houses in Kedah and Penang

Sources: ADB (2005)



**Appendix 7: Regulatory Framework**



## Appendix 8: Post-Disaster Reconstruction Theories

Author	Publication	Year	Topic studied
World Bank	Risks and reconstruction: Experiences of resettlers and Refugees	2000	Social improvements after relocation
El-Mansari <i>et al.</i>	Reconstruction after disaster: Issues and practices	1997	Reconstruction with people
UNESCO	DHA News Journal	1997	Programmes of education, participation
United Nation	UNDRO. Shelter after disaster	1993	The social reconstruction of the community
	UNDRO News	1992	
Weldelibanos	A survey of earthquake mitigation strategies and building principles for small traditional dwellings	1993	The importance and possibilities of traditional technologies in the reconstruction process
Oliver-Smith	Post-disaster housing reconstruction and social inequality: A change to policy and practice	1990	The importance of social aspects in post-disaster reconstruction
Maskrey	Disaster mitigation: A community based approach	1989	Community based mitigation programmes
Aysan <i>et al.</i>	Housing and culture after disasters: A guide for future policy making on housing in seismic areas	1987	Permanent reconstruction and social consequences after resettlement. The importance of the community in the reconstruction process
Oliver	“Developments in the provision of culturally sensitive housing within seismic areas 1981-1986” Proceedings of Middle East and Mediterranean regional conference on earthen and low strength masonry buildings in seismic areas	1987	The importance of the participation of survivors and education programmes
Davis	Disasters and the small dwelling	1981	The importance of understanding low-cost residential reconstruction beyond the technical aspects

Adapted from Berman (2007)

## Appendix 9: Summary of Malaysia Housing Policy

Phase	Period	Focus of Attention	Strategies	Key Documents	Policy Analysis
Colonial period	Before 1957	<ul style="list-style-type: none"> <li>- Housing for government staff quarters</li> <li>- Resettlement of people during communist insurgencies to the new village</li> <li>- Resettlement of people to Felda scheme</li> <li>- Provision of housing especially for low income people in urban areas</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of government quarters based on department requirement</li> <li>- Building of houses in the new settlements with facilities for more than 500,000 people</li> <li>- Planning and development of Felda Scheme with the housing and facilities</li> <li>- Setting-up of Housing Trust in 1952</li> </ul>	<ul style="list-style-type: none"> <li>- Briggs Plan, 1952</li> <li>- Land Resettlement Act, 1956</li> <li>- Housing Trust Ordinance, 1949</li> <li>- G. Rudduck Report, 1950s</li> </ul>	<ul style="list-style-type: none"> <li>- Government are the key player in housing provision</li> <li>- Physical oriented</li> <li>- Ad-hoc policies</li> </ul>
Early stage of independence	1957 – 1970	<ul style="list-style-type: none"> <li>- Continuing the colonial government policies with minor improvement</li> <li>- Emphasis on housing especially for low income group in urban areas</li> <li>- Private sector involvement in housing provision</li> <li>- Improvement of basic infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation follow the colonial policies with limited budget</li> <li>- Housing Trust involved actively low cost housing development in urban areas such as KL and Penang</li> <li>- Private sector to concentrate on medium and high cost housing</li> </ul>	<ul style="list-style-type: none"> <li>- First and Second Malaya Plan (1955 - 1964)</li> <li>- First Malaysia Plan (1965 - 1969)</li> </ul>	<ul style="list-style-type: none"> <li>- Government as key player in housing provision especially low cost</li> <li>- Private sector to focus on medium and high cost housing</li> </ul>
New Economic Policy	1971- 1990	<ul style="list-style-type: none"> <li>- Eradication of poverty &amp; restructure the society</li> <li>- Implementation of Human Settlement Concept in housing development</li> <li>- Housing for low income group given priority in national policies</li> <li>- Private sector play as key player in housing provision</li> </ul>	<ul style="list-style-type: none"> <li>- High rate of rural-urban migration</li> <li>- Private sector was responsible to built large portion of housing for people including low cost</li> <li>- Ceiling price for low cost house was set at RM25,000 in 1982</li> <li>- Government established state agencies</li> <li>- Encourage national unity in housing development</li> </ul>	<ul style="list-style-type: none"> <li>- New Economic Policy, 1971</li> <li>- Second Malaysia Plan to Fifth Malaysia Plan (1971- 1990)</li> </ul>	<ul style="list-style-type: none"> <li>- Private sector as key player in housing provision including low cost</li> </ul>

National Development Plan Housing	1991-2000	<ul style="list-style-type: none"> <li>- Continue implementation of NEP policies and strategies</li> <li>- Human Settlement Concept with Emphasis on sustainable development</li> <li>- To ensure all people regardless of their income to live in decent house</li> <li>- Private sector continue to responsible in housing provision for the people</li> </ul>	<ul style="list-style-type: none"> <li>- To build more affordable housing especially low and low medium cost housing (Low medium cost housing as major component in housing provision since Seventh Malaysia Plan) (1996-2000)</li> <li>- Emphasis on squatters' elimination by the year 2005</li> <li>- Government created new laws and guidelines to control private sector</li> </ul>	<ul style="list-style-type: none"> <li>- National Development Plan, 1991</li> <li>- Sixth and Seventh Malaysia Plan (1991 - 2000)</li> <li>- Agenda 21 (UNCHS), 1994</li> <li>- The Habitat Agenda 1996</li> </ul>	<ul style="list-style-type: none"> <li>- Private sector still play as key player in housing provision but government created many new laws and guidelines to ensure quality housing</li> </ul>
Vision Development Plan	2001-2010	<ul style="list-style-type: none"> <li>- Emphasis on sustainable urban Plan development and adequate housing for all income groups</li> <li>- Housing development will be integrate with other type of development such as industry and commercial</li> <li>- Emphasis on ICT</li> <li>- Government as key player in low cost housing provision and private sector for medium and high cost</li> </ul>	<ul style="list-style-type: none"> <li>- Continue effort to provide the guidelines and inculcate the citizen understanding towards sustainable development and encourage citizen to participate in housing development in line with Local Agenda 21</li> <li>- Encourage more private developers to construct low medium cost house</li> <li>- Setting-up Human Settlement Research Institute or MAHSURI to encourage housing (research and development in housing)</li> </ul>	<ul style="list-style-type: none"> <li>- Vision Development Plan 2001</li> <li>- Eight Malaysia Plan, 2001 - 2005</li> </ul>	<ul style="list-style-type: none"> <li>- Government as key player in provision of low cost housing provision</li> </ul>

Source: Various Five Years Malaysia National Plan<sup>23</sup>

<sup>23</sup> Adopted from Razali, A. (2001) *Public Housing in Malaysia: Policy and Practice (Perumahan Awam Di Malaysia: Dasar dan Amalan)*, Kuala Lumpur: Utusan Publication and Distribution Sdn Bhd.

## Appendix 10: Case Studies of Reconstruction Projects

	Project	Reference
1	Core shelter project in Philippines after Typhoon Sisang (1987)	Diacon (1992)
2	CIDA-CECI-Atlas Logistics reconstruction project in Honduras after Mitch (1999)	Ranaganath (2000)
3	Post-earthquake relocation project of the Lio Village, Indonesia (1992)	Gunawan (1999)
4	Post-earthquake emergency housing project carried out by OXFAM in Turkey (1975)	UNDRO (1993)
5	Emergency housing projects carried out by the West Red Cross in Turkey (1970) and in Nicaragua (1972)	UNDRO (1993)
6	Post-earthquake cardboard city project in Turkey (2000)	Ban (1996), Johnson (2002)
7	Post-earthquake reconstruction project in San Salvador by the Cooperative Housing Foundation (1986)	Solo (1991)
8	Post-disaster prefabricated housing project (so-called 'Casas Rusas') in Yungay, Peru (1973)	Oliver-Smith (1990)
9	Post-earthquake relocation project organised by the Government of Maharashtra in India (1993)	Salazar (1999)
10	Post-earthquake reconstruction project in Ecuador by CAAP (1987)	Dudley (1988)
11	Colombian Coffee Growers Federation's rural post-earthquake reconstruction project in Colombia	Lizarralde (2000)
12	Colombian urban reconstruction project in Armenia, Colombia (2000) by Forec	Lizarralde (2000)
13	UNCHS-Habitat's approach for reconstruction programs in Bolivia (1986) and Ecuador (1987)	Habitat (1985)
14	ASIPE's self-help construction project in San Francisco de Ayutuxtepeque, Salvador (1993)	Hays (1995)
15	Post-avalanche reconstruction project for Armero by the Save the Children Federation in Colombia (1985)	Anderson (1989)
16	Post-earthquake housing and rural development by ALIANZA in Joyabaj, Guatemala (1977)	Anderson (1989)
17	Sites-and-services project in Aranya, India (1981). This is not a post-disaster project	Bhatt (1999)

Adapted from Berman (2007)

## Appendix 11: Comparison between Quantitative and Qualitative

Quantitative	Qualitative
Uses deductive form of reasoning: collect data to assess preconceived models, hypotheses and theories	Uses an inductive form of reasoning: develops concepts, insights and understanding from patterns of data
Uses an ethic perspective: the meaning is determined by the researcher	Uses a perspective of enquiry: derives meaning from the subject perspective
Is homothetic: aims to objectively measure the social world, to test hypothesis and to predict and control human behaviour	Is idiographic: aims to understand the meaning that people attach to everyday life
See reality as objective	Regards reality as subjective
Research questions: How many? Strength of association?	Research questions: What? Why?
Designs: descriptive, correlative, quasi-experimental, experimental	Designs: phenomenological grounded in theory, ethnographic, historical, philosophical, case study
Concept are in the form of distinct variables	Concept is in the form of themes, motifs and categories
The research design is standardised according to a fixed procedure and can be replicated	The research design is flexible and unique and evolves throughout the research process. There are no fixed steps that should be followed and therefore cannot be exactly replicated
The units of analysis are variables which are atomistic i.e. elements that form part of a whole	The unit of analysis is holistic, concentrating on the relationship between elements and contexts. The whole is always more than the sum of its parts
Seeks to control phenomena	Seeks to understand phenomena
'Hard' science	'Soft' science
Literature review must be done early in study	Literature review may be done as study progresses or afterwards
One reality: focus is singular and narrow	Multiple realities: focus is complex and broad
Test theory	Develops theory
One reality: focus is concise and narrow	Multiple realities: focus is complex and broad
Facts are value-free and unbiased	Facts are value-laden and biased
Report contains statistical analysis. Basic elements of analysis are numbers	Report contains rich narrative, individual interpretation. Basic elements of analysis are words/ideas
Reduction, control, precision	Discovery, description, understanding, shared interpretation
Measurable	Interpretive
Mechanistic: parts equal the whole	Organismic: whole is greater than the parts
Report statistical analysis	Report rich narrative, individual; interpretation
Basic element of analysis is numbers	Basic element of analysis is words/ideas
Researcher is separate	Researcher is part of process
Subjects	Participants
Context free	Context dependent
Hypothesis	Research questions
Reasoning is logistic and deductive	Reasoning is dialectic and inductive
Establishes relationships, causation	Describes meaning, discovery
Uses instruments	Uses communications and observation
Strives for generalisation	Strives for uniqueness
Generalisations leading to prediction, explanation, and understanding	Patterns and theories developed for understanding
Highly controlled setting: experimental setting (outcome oriented)	Flexible approach: natural setting (process oriented)
Sample size: n (30-500)	Sample size is not a concern; seeks "informal

	rich" sample
"Counts the beans"	Provides information as to "which beans are worth counting"

Sources: Babbie & Moun-ton (1998); Denzin & Lincon (1994);  
Foley (2003); Bateman & Ferris (1984) and Neuman (1997)

## Appendix 12: Survey Questionnaire

<p>No : <span style="border: 1px solid black; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 40px; height: 20px; vertical-align: middle;"></span></p> <p>Department : <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px; vertical-align: middle;"></span></p> <p>Level : <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px; vertical-align: middle;"></span></p>	<p>For office only</p> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 5px auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 5px auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 5px auto;"></div>
---	--

Please fill in the relevant information of your personal details by making a cross (X) or by printing the required information in the box provided.

1. Gender : M  F

2. Age

3. No. of years service :

4. Current professional status : 1. Chairman

(Mark with a cross **x** all that is relevant)

2. Manager

3. Technical

4. Clerical

5. Officer

6. Others : Please specify

5. Level Control :	National	<span style="border: 1px solid black; padding: 0 10px;"></span>
(Mark <b>x</b> all that is relevant)	State	<span style="border: 1px solid black; padding: 0 10px;"></span>
	District	<span style="border: 1px solid black; padding: 0 10px;"></span>

6. Have you ever attended an in-service course in disaster management?

Yes 
No

7. Does your department have trained actors for regulatory compliance?

Yes 
No

8. Does your department have actors to look after compliance with the regulations?

Yes 
No

9. Does your department related directly to the scene of emergency housing?

Yes 
No

10. Does your department have specific regulation to make sure compliance with the regulation?

Yes 
No



## Attitudinal Scale

Please respond honestly to **ALL** the items below. Please remember there is no right or wrong answers.

To respond to all the items, circle a number each time:

1. Circle 1 if you **STRONGLY DISAGREE (SD)** with this statement.
2. Circle 2 if you **DISAGREE (S)** with this statement.
3. Circle 3 if you **UNDECIDED (U)** with this statement.
4. Circle 4 if you **AGREE (A)** with this statement.
5. Circle 5 if you **STRONGLY AGREE (SA)** with this statement.

SECTION A	SD	D	U	A	SA	
1. Actors do understand the Malaysian National Security Council (MNSC) rationale.	1	2	3	4	5	<input type="text"/>
2. Actors are well versed in the concept of the regulatory compliance.	1	2	3	4	5	<input type="text"/>
3. Actors have the necessary knowledge to apply regulatory compliance.	1	2	3	4	5	<input type="text"/>
4. Including disaster victims in compliance decision would necessitate retraining of actors.	1	2	3	4	5	<input type="text"/>
5. Actors do have the necessary skills to apply regulatory compliance.	1	2	3	4	5	<input type="text"/>
6. Actors do have the necessary skills to apply regulatory compliance together with the disaster victims.	1	2	3	4	5	<input type="text"/>
7. Actors frequently discuss in department meetings the application of regulatory compliance.	1	2	3	4	5	<input type="text"/>
8. Actors have read many printed materials available in the department about regulatory compliance.	1	2	3	4	5	<input type="text"/>
9. Actors have frequent informal talks with head departments on the possibility of achieving regulatory compliance.	1	2	3	4	5	<input type="text"/>
<b>SECTION B</b>						
10. Disaster victims have the right to regulatory compliance.	1	2	3	4	5	<input type="text"/>
11. Disaster victims and actors should be working together.	1	2	3	4	5	<input type="text"/>
12. The participation of disaster victims can not best be served through separate entity without actors.	1	2	3	4	5	<input type="text"/>
13. The MNSC Directive 20 is right in giving special attention to the disaster victims' needs.	1	2	3	4	5	<input type="text"/>
14. Exposure to disaster victims will encourage actors to be more caring towards better emergency housing.	1	2	3	4	5	<input type="text"/>
15. It is appropriate to fully include disaster victims in making decision towards regulatory compliance.	1	2	3	4	5	<input type="text"/>

Please respond honestly to **ALL** the items below. Please remember there is no right or wrong answers.

To respond to all the items, circle a number each time:

1. Circle 1 if you **STRONGLY DISAGREE (SD)** with this statement.
2. Circle 2 if you **DISAGREE (S)** with this statement.
3. Circle 3 if you **UNDECIDED (U)** with this statement.
4. Circle 4 if you **AGREE (A)** with this statement.
5. Circle 5 if you **STRONGLY AGREE (SA)** with this statement.

		<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>	
16.	Disaster victims without knowledge about regulation should be involved in regulatory compliance decision.	1	2	3	4	5	<input type="text"/>
17.	Disaster victims with experience but without knowledge should also be involved in regulatory compliance decision.	1	2	3	4	5	<input type="text"/>
18.	Disaster victims should be more sensitive and participate in regulatory compliance.	1	2	3	4	5	<input type="text"/>
19.	The psychological development of the disaster victims would be promoted if included in the process of regulatory compliance.	1	2	3	4	5	<input type="text"/>
20.	Actors would be able to learn more appropriate social skills if involved with the disaster victims.	1	2	3	4	5	<input type="text"/>
21.	The understanding and knowledge of the actors would not be adversely affected if the disaster victims involve in the process of regulatory compliance.	1	2	3	4	5	<input type="text"/>
22.	Including disaster victims in the process of regulatory compliance decision would not increase actors' workloads.	1	2	3	4	5	<input type="text"/>
23.	The behaviours of disaster victims would not make regulatory compliance impractical.	1	2	3	4	5	<input type="text"/>
24.	Disaster victims would be able to move easily to adapt as a group in the process of regulatory compliance.	1	2	3	4	5	<input type="text"/>
25.	The communication difficulties between disaster victims and actors would not create confusion in regulatory compliance.	1	2	3	4	5	<input type="text"/>
26.	Disaster victims would be able to cope with emergency housings' regulation.	1	2	3	4	5	<input type="text"/>
27.	Disaster victims would be able to cope with all actors' behaviour in the process of regulatory compliance.	1	2	3	4	5	<input type="text"/>
28.	Disaster victims would be able to cope with the entire disaster environment in the process of regulatory compliance.	1	2	3	4	5	<input type="text"/>
29.	Educating the disaster victims should not be left to specialist in disaster recovery or psychologist.	1	2	3	4	5	<input type="text"/>
30.	Actors have a responsibility for the education of disaster victims in the process of regulatory compliance.	1	2	3	4	5	<input type="text"/>

Please respond honestly to **ALL** the items below. Please remember there is no right or wrong answers.

To respond to all the items, circle a number each time:

1. Circle 1 if you **STRONGLY DISAGREE (SD)** with this statement.
2. Circle 2 if you **DISAGREE (S)** with this statement.
3. Circle 3 if you **UNDECIDED (U)** with this statement.
4. Circle 4 if you **AGREE (A)** with this statement.
5. Circle 5 if you **STRONGLY AGREE (SA)** with this statement.

SECTION C	SD	D	U	A	SA	
31. Actors are supportive of the idea of regulatory compliance.	1	2	3	4	5	<input type="text"/>
32. Actors will accept the current regulations about to change.	1	2	3	4	5	<input type="text"/>
33. Actors will volunteer to attend relevant in-service training on regulatory compliance.	1	2	3	4	5	<input type="text"/>
34. Actors will accept the regulatory compliance under present regulation only if directed.	1	2	3	4	5	<input type="text"/>
35. Actors will only accept the idea of participate disaster victims who do not have disruptive behaviours.	1	2	3	4	5	<input type="text"/>
36. Actors will accept the regulatory compliance if relevant specialist support is available.	1	2	3	4	5	<input type="text"/>
37. Actors will accept regulatory compliance even though there is no change in current regulation or conditions.	1	2	3	4	5	<input type="text"/>
38. Actors will only accept regulatory compliance if given incentives.	1	2	3	4	5	<input type="text"/>
39. Actors will accept regulatory compliance even though will affect annual appraisal.	1	2	3	4	5	<input type="text"/>

40. Please state your views on regulatory compliance with the MNSC Directive 20.

41. What changes do you feel need to be made at the department level before regulatory compliance fully implement?

### Appendix 13: Rationale of the Questionnaires (Dependent Variables)

Item Number, Q	Rationale
	<b>Section A</b>
1	Elicit actors' perceived knowledge of the MNSC Directive 20 aims and objective of regulatory compliance and related programme
2	Elicit actors' perceived knowledge about the 'compliance', its aims and objectives
3, 4, 5, 6	Elicit actors' perceived abilities to apply regulatory compliance requirement within the MNSC Directive 20
7, 8, 9	Elicit the department readiness at least at the planning level for the implementation of regulatory compliance with the MNSC Directive 20. Also to gauge actors exposure towards the ideas of regulatory compliance at the department level
	<b>Section B</b>
10,13	Elicit actors' perception of 'rights' of disaster victims' needs to be educated to disaster environment
11, 12, 29, 30	Elicit actors feeling towards the need of regulatory compliance and disaster victims' participatory, that is, inclusion or separation
14, 21	Elicit actors' perceived effect of disaster victims' involvement as the result of regulatory compliance
15, 16, 17, 23, 24, 25	Elicit actors' perceived suitability of disaster victims' to be included into the process of regulatory compliance
18, 19, 20	Elicit actors' perceived advantages/disadvantages of disaster victims' development when included in the decision making of regulatory compliance
22	Elicit actors' perceived increases in the amount of responsibility if implement regulatory compliance
26, 27, 28	Elicit actors' perceived suitable of the current MNSC Directive 20 towards regulatory compliance
	<b>Section C</b>
31, 32	Elicit actors' support of the MNSC Directive 20
34, 35, 36, 37, 38, 39	Elicit some of regulations' condition that needs to be changed if actors are to accept regulatory compliance implementation in Malaysia
33	Elicit willingness of actors to develop skills towards regulatory compliance

Source: Author

#### Appendix 14: Codes Used in Analysing Open-Ended Item 40 of the Survey Questionnaire

##### **A : Disagreed; Reasons**

- A1 : Regulatory compliance would disrupt the current norms of the working process.
- A2 : Regulatory compliance will increase actors' workload.
- A3 : Regulatory compliance will have negative effect on other disaster victims' adaptation.
- A4 : Actors do not have the appropriate skills in emergency housing and to manage disaster victims.
- A5 : Disaster victims need specialised actors in emergency management to handle them.
- A6 : Disaster victims would not be able to cope with adaptation.
- A7 : Disaster victims' group size is too large to support the adaptation process.
- A8 : Disaster victims would be discriminated and victimised by other disaster victims.
- A9 : Disaster victims would be demoralised if included in disaster victims' group.
- A10 : Regulatory compliance is difficult to implement because of disruptive behaviours in disaster victims.
- A11 : Regulatory compliance is difficult to implement because of appraisal pressures.
- A12 : Regulatory compliance is difficult to implement because of negative acceptance of actors.
- A13 : Regulatory compliance is difficult to implement because of insufficient resources.
- A14 : Regulatory compliance is difficult to implement because of negative acceptance of disaster victims.
- A15 : Regulation and guidelines are unsuitable for actors and disaster victims.
- A16 : Disaster victims are not interested in being included in disaster victims' group.
- A17 : There are no working assistants to help actors involved in regulatory compliance.

##### **B : Undecided; Reasons**

- B1 : if, departments are given extensive information on regulatory compliance implementation process.
- B2 : if, actors are given training in emergency management.
- B3 : if, appropriate resourcing is made available on site.
- B4 : if, disaster victims included in disaster victims' group do not have a behavioural problem.
- B5 : if, disaster victims included in disaster victims' group have the prerequisite skills (are ready).
- B6 : if, disaster victims included in disaster victims' group are psychologically able.
- B7 : if, disaster victims included in disaster victims' group have moderate difficulties.
- B8 : if, regulatory compliance involves non-religious matters only.
- B9 : if, all actors in the department are willing to co-operate in the regulatory compliance programme.
- B10 : if, the implementation of regulatory compliance is properly planned.
- B11 : but, difficult to implement because disaster victims have behavioural problem.
- B12 : but, difficult to implement because disaster victims' group is too large.
- B13 : but, regulatory compliance will increase actors' workload.
- B14 : but, regulatory compliance implementation needs to be planned carefully.
- B15 : but, depends on the types of disaster victims difficulties.
- B16 : but, regulatory compliance will benefit only some actors and disaster victims.
- B17 : but, disaster victims have psychological problems.
- B18 : but, disaster victims will develop traumatic problems.
- B19 : but, department do not have the appropriate resources in emergency housing and to handle disaster victims.
- B20 : but, actors are not trained in emergency management and to manage disaster victims.
- B21 : but, regulatory compliance will take time to succeed.

##### **C : Agreed; Reasons**

- C1 : Regulatory compliance would help in the realisation of the 'caring society'
- C2 : Regulatory compliance would promote and develop self-esteem in actors and disaster victims

- C3 : Regulatory compliance is in line with the national philosophy of equal opportunities
- C4 : Regulatory compliance would make it easier for disaster victims to accommodate themselves in actors-disaster victims' group
- C5 : A good idea (no reasons provided)
- C6 : Regulatory compliance would promote adaptation atmosphere in disaster victims

#### **Appendix 15: Codes Used in Analysing Open-Ended Item 41 (Changes Recommended) of the Survey Questionnaire**

- 1 Actors should be given in-service training.
- 2 The department should be articulate on the rationale of implementing regulatory compliance.
- 3 All department involved in the regulatory compliance programme should be provided with appropriate physical resources (e.g. access to information, site office and suitable dressings) and working equipment (e.g. tools, first aid kit and furniture).
- 4 The members in disaster victims' group needs to be reduced to enable actors to attend to adaptation needed by the disaster victims appropriately.
- 5 All departments involved in the regulatory compliance programme should be provided with the service of relevant specialist to act as adviser or consultant to actors.
- 6 The post of actors' assistant is created in the department involved in the MNSC Directive 20 to support actors toward regulatory compliance.
- 7 Incentives are given to actors involved in regulatory compliance programme.
- 8 Certain aspects of the current MNSC Directive 20 should be customised to ensure that disaster victims may have wider access to relevant information and other facilities.
- 9 Disaster victims should be ready (mentally and emotionally) before being included in actors and disaster victims' group.
- 10 Actors' workload need to be reduced.
- 11 Attainment of individual actors' appraisal should not be the sole basis of department yearly appraisal or evaluation.
- 12 Credit should be given to the department in its yearly appraisal or evaluation for their good practice in regulatory compliance.
- 13 Everyone in the department involved must be participated in the programme.
- 14 Continuous evaluation and assistance to the programme at district, state and national levels.
- 15 Only actors interested in the programme should be involved in the regulatory compliance programme.
- 16 Acknowledge and promote the benefits of regulatory compliance to all communities and relatives.
- 17 Actors should be given easy access to the programme information and facilities.
- 18 Different types of actors' evaluation (i.e. not for appraisal only rather to other personal achievement).
- 19 Freedom for actors to work without interference from NGO's.
- 20 Provide more opportunities to other related department to volunteer to get involved.
- 21 Increased financial support to department involved in regulatory compliance programme.
- 22 The number of disaster victims included in disaster victims' group should be limited.

No :	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Department :	<input type="text"/>	<input type="text"/>		
Level :	<input type="text"/>	<input type="text"/>		

Please fill in the relevant information of your personal details by making a cross (X) or by printing the required information in the box provided.

1. Gender :	<input type="text" value="M"/>	<input type="text"/>	<input type="text" value="F"/>	<input type="text"/>	2. Age	<input type="text"/>
-------------	--------------------------------	----------------------	--------------------------------	----------------------	--------	----------------------

3. No. of years service :	<input type="text"/>	<input type="text"/>
---------------------------	----------------------	----------------------

4. Current professional status :	1. Chairman	<input type="text"/>
----------------------------------	-------------	----------------------

(Mark with a cross x all that is relevant)

	2. Manager (contact with disaster victims)	<input type="text"/>
		<input type="text"/>
	3. Technical	<input type="text"/>
	4. Clerical	<input type="text"/>
	5. Officer	<input type="text"/>
	6. Others : Please specify	<input type="text"/>

5. Level Control :	National	<input type="text"/>
(Mark x all that is relevant)	State	<input type="text"/>
	District	<input type="text"/>

6. Have you ever attended an in-service course in disaster management?

<input type="text" value="Yes"/>	<input type="text"/>	<input type="text" value="No"/>	<input type="text"/>
----------------------------------	----------------------	---------------------------------	----------------------

7. Does your department have trained actors for regulatory compliance?

<input type="text" value="Yes"/>	<input type="text"/>	<input type="text" value="No"/>	<input type="text"/>
----------------------------------	----------------------	---------------------------------	----------------------

8. Does your department have actors to look after compliance with the regulations?

<input type="text" value="Yes"/>	<input type="text"/>	<input type="text" value="No"/>	<input type="text"/>
----------------------------------	----------------------	---------------------------------	----------------------

9. Does your department related directly to the scene of emergency housing?

<input type="text" value="Yes"/>	<input type="text"/>	<input type="text" value="No"/>	<input type="text"/>
----------------------------------	----------------------	---------------------------------	----------------------

10. Does your department have specific regulation to make sure compliance with the regulation?

<input type="text" value="Yes"/>	<input type="text"/>	<input type="text" value="No"/>	<input type="text"/>
----------------------------------	----------------------	---------------------------------	----------------------

Respondent name/Code number	<input style="width: 60%;" type="text"/>
-----------------------------	--

Department :	<input style="width: 85%;" type="text"/>
--------------	--

[illegible]

## **Interview Protocol**

I am doing a study on actors' attitudes towards the intended implementation of regulatory compliance in providing emergency housing under the Malaysian National Security Council (MNSC) Programme. I am doing this study in order to gain a better understanding of actors' attitudes, and I hope to be able to forward actors' views on this issue to the relevant disaster management authorities for consideration, prior to its implementation in every level of actions.

I would like to record this interview with your permission because that would be a true record of our conversation. In no way would your identity be revealed. Data used will be treated in strict confidential. Answer can be given in English Language or in Malay Language.

Thank you for your co-operation.

## **Interview schedule**

Note: Term 'Sir or equal' when used in individual interviews with specific status will be change appropriate to 'you' when interviewing individual actors.

## **Cognitive**

1. Have you read any of the circulars, bulletins or any printed materials available in this department on the Malaysia National Security Council Programme and what do you think about its intention towards the implementation of regulatory compliance with this programme?

Yes

No

**Why not?**

2. What does the term 'regulatory compliance' mean to you?
3. What do you understand by the term 'emergency housing' and the term 'disaster victims' in disaster scene?
4. Have you discussed with your officers/colleague(s) about the implementation of regulatory compliance related to emergency housing and how well do you think they know about this implementation? Do you make contact with the disaster victims?

Yes

No

i. formally

informally

**Why not?**

5. What do you think the reasons towards this implementation?
6. How would you rate your officers/colleague(s) abilities to apply regulatory compliance? **Why?**

## **Affective**

7. Do you think disaster victims under the MNSC Directive 20 have the rights towards regulatory compliance? **Why?**
8. Do you feel it would be beneficial in terms of ;
  - a. Knowledge,
  - b. Social development, and
  - c. Emotional development,for the disaster victims to be included in the process of decision making? **Why?**
9. What is your comment on the suitability of the current regulations/guidelines, programme in disaster management especially in emergency housing?



10. In what way do you think your officers/colleague(s)' workload would be affected if disaster victims are included in the process of regulatory compliance?
11. What effect do you think including disaster victims in regulatory compliance would have on actors on the scene of disaster?
12. How do you feel your departments' appraisal would be affected by implementing regulatory compliance in emergency housing?

Positive answer

Negative answer

Do you mind? (Yes, No)

Can you suggest any other ways the department should be assessed?

13. What do you think is the most and least important regulations/guidelines towards regulatory compliance in emergency housing? **Why?**
  - a. Regulations in the present national planning and building codes applied for all authorities in Malaysia in developing commercial housing scheme.
  - b. Guidelines under the MNSC Directive 20.
  - c. International Standard by the international bodies like SPHERE, UNHCR and OXFAM in disaster actions.

#### **Conative**

14. Do you think your officers/colleague(s) would support the MNSC Directive 20 to maximise regulatory compliance with the emergency housing requirement? **Why?**
15. Do you agree that regulatory compliance may promote a 'caring feeling' and acceptance between actors and disaster victims?

Yes

No

**Why?**

Please elaborate

16. Do you think your officers/colleague(s) would be willing to attend the relevant in-service courses towards the understanding of the implementation of regulatory compliance? **Why?**
17. Under what condition(s) do you think you would accept regulatory compliance (e.g. only if directed to do so, availability of specialist support, incentives (types), in group, annual appraisal, no change to the current regulation environment) (for every condition)? **Why?**
18. Under the prevalent regulation conditions, what do you think is/are the barrier(s) to implementation of regulatory compliance in your department? **Why?**
19. What changes would you like to see happening in your department prior to regulatory compliance implementation? **Why?**
20. Can you suggest ways on how to gain actors' support in the implementation of regulatory compliance in this department?

## Appendix 17: Rational of the Interview Questions

Rational of the Interview Questions	
Question number	Rational
3, 4, 5	<b>Cognitive</b> Gauge perceived knowledge and understanding of regulatory compliance
1, 2	Gauge perceived knowledge of regulatory compliance in disaster management under the Malaysia National Security Council Programme
6	Perceived ability to apply regulatory compliance with the MNSC Directive 20
7	<b>Affective</b> Actors' feelings about the 'rights' of the disaster victims to regulatory compliance
8	Advantages/disadvantages of regulatory compliance to the disaster victims
9	Perceived suitability of the present regulations/programme to the actors
10	Perceived suitability of the present workload for the actors in sharing responsible with the disaster victims in decision making
11	Perceived effect of disaster victims' involvement in decision making together with the actors
12	Perceived effect of department level appraisal towards implementing regulatory compliance
13	Perceived the most favour regulations on the scene of disaster management and emergency housing
14	<b>Conative</b> Willingness to support regulatory compliance
15	Willingness to promoting a 'caring feeling' and acceptance of disaster victims under the MNSC Directive 20
16	Willingness to attend in-service course as the result of regulatory compliance implementation
17, 20	Conditions to support regulatory compliance implementation
18	Perceived barriers to regulatory compliance implementation
19	Changes suggested before regulatory compliance implementation

Source: Author

## Appendix 18: Codes Used to Analyse Interviews

1	: Circulars/bulletins on the MNSC Directive 20	
1a	: Had read/received	
		Reasons
1ai	: Department level have received circulars on the MNSC Directive 20	
1b	: Had not read/received	
		Reasons
1bi	: Department level had not received circulars	
1bii	: Circulars only for technical staff	
1biii	: Not interested because not technical staff	
1biv	: Department level had not received circulars	
1A	: Intention towards regulatory compliance	
1Ai	: Agree	
		Reasons
1Aia	: Already implemented	
1Aii	: Undecided	
		Reasons
1Aiaa	: Situational actions	
1Aiii	: Disagreed	
		Reasons
1Aiiia	: Practically impossible	
2	: Meaning of regulatory compliance	
2i	: No comment	
2ii	: Systems or departments in any organisations and public agencies to ensure that personnel are aware of and take steps to comply with relevant laws and regulations	
2iia	: Agencies should ensure and document that their activities are in compliance with all applicable federal, state, and local laws and regulations	
2iib	: Agencies should ensure that all staff is appropriately credentialed for the functions they will be performing	
2iic	: Agencies should be aware of, and comply with, any state or local requirements related to the provisions or regulations	
3	: Meaning of emergency housing	
3i	: Is the fast build process when an emergency occurs; when the life of a person is at risk by a natural or non-ordinary situation	
3ii	: Any tent, trailer, mobile home, or other structure used for human shelter that is designed to be transportable and which is not attached to the ground, to another structure, or to any utility system on the same premises for more than 30 consecutive days	
3iii	: A shaded room or group of rooms located within a dwelling forming a single habitable unit with facilities used or intended to be used by a single family for living, sleeping, cooking, and eating	
3iv	: A room or enclosed floor space used or intended to be used for living, sleeping, cooking or eating purposes, excluding bathrooms, laundries, furnace rooms, pantries, kitchenettes and utility rooms, foyers, or communicating corridors, stairways, closets, storage spaces, workshops, and hobby and recreation areas	
3v	: Any enclosed space wholly or partly used or intended to be used for living, sleeping, cooking, and eating	
3A	: Meaning of disaster victims	
3Ai	: Disaster victims under resilience difficulties	
3Aii	: Disaster victims under physical distraction under resilience difficulties	
3Aiii	: Disaster victims under adaptation problems	
3Aiv	: Disaster victims who resilience difficulties under authorities responsibilities	

4	: Discussion about regulatory compliance	
4a	: Yes	Reasons
4ai	: Only with actors involved in regulatory compliance	
4aii	: Only informally	
4aiii	: Their fairly work will be misjudged	
4b	: No	Reasons
4bi	: Not emergency housing department at the moment	
4bii	: Never occurs to discuss it	
4A	: Knowing disaster victims	
4Aa	: Quite well	Reasons
4Aai	: Regularly visit disaster site	
4Aaaii	: Involved in engagement programme	
4Ab	: Moderately well/some do, some do not	Reasons
4Abi	: Only those who sent to the group	
4Abii	: Hardly visit disaster site	
4Abiii	: Only those who regularly visit disaster site	
4Abiv	: Very little/only from afar	
4Ac	: Not very well	Reasons
4Aci	: Lack of interest	
4Acii	: Never go to disaster site	
4Aciii	: Not interested in disaster victims	
4Aciv	: Very few actors discussed disaster victims' affairs	
5	: Rationales of regulatory compliance	
5a	: No comment	
5b	: Very few actors understand	Reasons
5bi	: Lack of information about regulatory compliance	
5bii	: Not interested in regulatory compliance	
5A	: Rationales for regulatory compliance	
5Ai	: To set a margin and uniformity to the actors in carrying their duties	
5Aii	: To prevent disaster victims under the MNSC Directive 20 from having inferiority complexes	
5Aiii	: To establish understanding towards regulatory compliance in department level	
5Aiv	: To increase the regulatory compliance in all departments	
5Av	: To accommodate disaster victims under the MNSC Directive 20 into disaster society.	
5Avi	: To create a "caring feeling" under in the actors.	
5Avii	: To give disaster victims under the MNSC Directive 20 equal opportunities in regulatory compliance	
6	: Actors' ability to handle disaster victims	
6a	: Can handle	Reasons
6ai	: Disaster victims included had intellectual ability equal to disaster peers in the group	
6aii	: Just can	
6aiii	: Are trained actors	
6aiv	: Had experienced working in disaster victims environment	
6b	: Undecided	Reasons

6bi	: Not patient	
6bii	: Depends on types of resilience difficulties	
6c	: Cannot handle	Reasons
6ci	: No training	
6cii	: Just cannot	
6ciii	: Never experienced working with disaster victims	
6civ	: No skills to handle disaster victims	
7	: Rights to regulatory compliance	
7a	: Have rights	Reason
7ai	: Equal compliance opportunities/Humanitarian	
7aii	: Socialisation process	
7b	: Undecided	Reasons
7bi	: If disaster victims can cope with disaster adaptation	
7bii	: For certain regulations only	
7biii	: If appropriate resources are available	
7c	: Disagreed	Reasons
7ci	: Disaster victims have rights to get different provisions	
8	: Advantages/Disadvantages of regulatory compliance to disaster victims	
8A	: Knowledge gain	
8Ai	: Improved	Reasons
8Aia	: Learned from actors	
8Aib	: Disaster victims have equal intellectual ability to disaster victims	
8Aic	: Learned from disaster victims	
8Aii	: Undecided	Reasons
8Aiiia	: If actors are committed in their working	
8Aiiib	: If actors have required skills	
8Aiiic	: If disaster victims have prerequisite skills	
8Aiiid	: If disaster victims are given adequate individual attention	
8Aiiie	: Depends on disaster victims resilience difficulties	
8Aiiif	: Never handled disaster victims	
8Aiiiii	: Not improved	Reasons
8Aiiiaa	: Disaster victims will not get individual attention	
8Aiiibb	: Group size high	
8Aiiicc	: Disaster victims cannot cope with disaster adaptation	
8Aiiidd	: Actors prioritise disaster victims' adaptation	
8B	: Social development	
8Bi	: Improved	Reasons
8Bia	: Learned from actors	
8Bib	: Regulatory compliance will improve disaster victims' social skills	
8Bic	: Familiarise disaster victims with actors	
8Bid	: Learned from disaster victims	
8Bii	: Undecided	Reasons

8Biia	: If actors play their part	
8Biib	: No experience working with disaster victims	
8Biic	: Not all actors can accept disaster victims	
8c	: Emotional development	
8Ci	: Improved	Reasons
8Cia	: Widen the scope for emotional development	
8Cib	: Boost disaster victims confidence	
8Cii	: Undecided	Reasons
8Ciia	: For some disaster victims but not others	
8Ciib	: Difficult for department level practicing streaming	
8Ciii	: Not improved	Reasons
8Ciiia	: Disaster victims will be embarrassed	
8Ciiib	: Disaster victims will be victimised	
10	: Suitability of regulations	
10a	: Suitable	
9ai	: With modification	
9aii	: Regulations is used to handle disaster victims	
9b	: Undecided	
9bi	: Depends on earlier stage or later stage	
9bii	: Depends on disaster victims education	
9biii	: Certain regulations only	
9C	: Not suitable	Reasons
9Ci	: Standard too high	
9Cii	: Too many regulations	
10	: Effect on actors' workload	
10a	: Will increase	Reason
10ai	: More handling preparations	
10aai	: More attention to disaster victims	
10aiii	: Delay in finishing programme	
10aiv	: More work to record disaster victims' progress	
11	: Effect on disaster victims	
11i	: Not affected	Reasons
11ia	: Normal working process as usual	
11ib	: Disaster victims are intellectually able	
11ic	: Disaster victims will work harder	
11id	: Disaster victims learned better when helping other disaster victims	
11ii	: Undecided	Reasons
11iia	: If regulatory compliance involves earlier phase of recovery only	
11iib	: If actors give more than the usual attention to disaster victims	
11iic	: If actors not able to apportion working time equally	
11iid	: If disaster victims have serious problems	
11iii	: Negatively affected	Reasons

11iiia	: Actors attention to disaster victims will neglect other disaster victims				
12	: Affect appraisal				
12a	: No				
				Reasons	
12ai	: Job is not just providing housing				
12aia	: Regulatory compliance is not part of the department level's appraisal				
12aii	: Regulatory compliance already calculated				
12aiv	: Part of their work				
12b	: Undecided				
				Reasons	
12bi	: Main objectives in emergency housing is to provide enough houses				
12bii	: Depends on disaster victims resilience difficulties				
12biii	: It depends on the actors' willingness to comply				
12biv	: Depends on actors' ability to apportion working time				
12c	: Negatively affected				
				Reasons	
12ci	: Extra attention may result project delays				
12cii	: Had other responsibilities and commitments				
12ciii	: Could never achieve the standard required				
12civ	: Not all the actors got the same abilities				
12A	: Alternative evaluation of department level				
12Ai	: Valuation in training programme should also be part of overall individual appraisal				
12Aii	: Valuation on behalf of the department should be done to the right person who are really specialise in emergency housing				
12Aiii	: Give credit to department level with good regulatory compliance practice				
13	: Disaster victims favoured for regulatory compliance				
13i	: Present planning and building codes				
13ii	: MNSC Directive 20				
13iii	: International Standard				
13a	: First	Second	Third		
				Reasons	
13ai	: Already familiar				
13aia	: Available resources				
13aii	: Practically proven				
13aiv	: Internationally recognised				
14	: Willingness to support regulatory compliance				
14a	: Unwilling				
14ai	: Present conditions not conducive				
14aia	: Too demanding to actors				
14aii	: Not trained in emergency housing				
14aiv	: Difficult to communicate with disaster victims				
14av	: Interfere with normal working and adaptation				
14b	: Undecided				
				Reason	
14bi	: Some will; some won't				
14bii	: If actors are well informed about regulatory compliance				
14biii	: If regulatory compliance involves earlier stage only				
14biv	: Depends on managers' support				
14vi	: If majority of actors support regulatory compliance				
14c	: Willing				
				Reasons	
14ci	: Humanitarian				

14cii	: Actors have been co-operative under the MNSC Directive 20 in the past	
15	: Caring feeling and acceptance of disaster victims	
15i	: Increased	Reasons
15ia	: Interaction will familiarise actors with disaster victims	
15ib	: Increased understanding of disaster victims problems	
15ic	: Helpful to disaster victims	
15id	: Aware of disaster victims' difficulties	
15ii	: Undecided	Reasons
15iia	: Some will and some won't	
15iib	: If actors play their part	
15iic	: Depend on actors' acceptance	
15iid	: If actors are active in its promotion	
15iii	: Will not increase	Reasons
16	: Actors willingness to attend training	
16a	: Will attend	Reasons
16ai	: To learn new skills	
16b	: Undecided	Reasons
16bi	: If directed	
16bii	: If given information about regulatory compliance	
16biii	: Very few clerical staff interested	
16biv	: If duration of training is shortened	
16bv	: If have disabled relatives	
16c	: Reluctant	Reasons
16ci	: Not interested	
16cii	: Personal problems	
16cii	: Will retire soon	
16civ	: Difficult to handle disaster victims	
16cv	: Training too long	
17	: Conditions for accepting regulatory compliance	
A	: Directed by the Prime Minister's Department	
B	: Disaster victims under the MNSC Directive 20 have certain abilities;	
C	: Have acquired the prerequisite skills	
D	: Have no behavioural problems	
E	: Would not accept disaster victims under the MNSC Directive 20 even under out behavioural problems	
F	: For non-religious regulations only	
18	: Barriers towards regulatory compliance	
A	: Lack of information.	
B	: System applied.	
C	: Internal.	
D	: International.	
E	: Actors workloads	
F	: Capacity of emergency housing.	
G	: Responsibilities not related to working.	
H	: Actors skill	
I	: Actors not trained towards the MNSC Directive 20.	
J	: Actors with specific skills only.	
K	: Appraisal pressure	
L	: Acceptance of disaster victims under the MNSC Directive 20	



- M : Managers' negative perception about the importance of regulatory compliance to disaster victims under the MNSC Directive 20
- N : Unwillingness of actors to accept disaster victims under the MNSC into their groups
- O : Negative acceptance of disaster victims under the MNSC Directive 20 by disaster communities
- P : Negative perception of disaster victims under the MNSC Directive 20 by relatives of disaster victims
- Q : Unwillingness of actors to relinquish their working responsibilities
- R : Resourcing
- S : Lack of regulatory compliance facilities and/or materials under the MNSC Directive 20
- T : Lack of emergency housing
- U : Inadequate number or lack of technical staff in the department level
- V : Abilities of disaster victims under the MNSC Directive 20
- W : Disaster victims' behaviours
- X : Disaster victims without formal education
- Y : Unwillingness of disaster victims under the MNSC Directive 20s themselves to be included in disaster victims' group
- 
- 19 : Changes suggested prior to regulatory compliance
- A : Training in emergency housing
- B : Actors given in-service training in emergency housing
- C : Disaster victims under the MNSC Directive 20 and regulatory compliance to be included in programme at actors training sessions
- D : Department level should be supplied with in-depth and extensive information on the Prime Minister's Department regulatory compliance plan
- E : Resourcing
- F : Build more emergency housing
- G : Create the post of working assistant
- H : Department level system
- I : Systems that is clear and focus
- J : Longer periods of direct contact with the disaster victims
- K : Volunteered by the disaster victims to get involve
- L : Regulatory compliance enforcement office
- M : Every District Office should have an officer in charge of regulatory compliance
- N : Relevant authorities should carry out continuous monitoring
- O : Officer in charge should have regulatory compliance background
- 
- 20 : Strategies recommended encouraging acceptance of regulatory compliance
- A : Personal incentives
- B : Monetary rewards
- C : Actors participation in the regulatory compliance programme made part of actor's appraisal
- D : Actors sent for overseas trips to study working techniques and strategies towards regulatory compliance group setting
- E : Actors involved in regulatory compliance programme are given a chance to further their studies in emergency assistance and housing studies at a higher level
- F : Material resources
- G : Provide all human support
- H : Support from technical staff
- I : Support from managers
- J : Support from other actors
- K : Reduction of actors' workload
- L : Reduce group of population involved in regulatory compliance programme
- M : Restriction of regulations
- N : Include disaster victims with resilience difficulties under the MNSC Directive 20 in the low in come and get benefit from other national programme
- O : Reduce actors working periods and non-working responsibilities
- P : Different community, place in different group
- Q : Provide proof to actors that regulatory compliance does work
- R : Involve actors recognised as excellent actors

**Appendix 19: Consent Letter by the Respondents**

Research Title:

**‘MANAGING DISASTERS IN MALAYSIA:  
THE ATTITUDE OF OFFICIALS TOWARDS COMPLIANCE WITH  
THE MNSC DIRECTIVE 20’**

I the undersigned am willing to take part in the above study of Ruhizal Roosli by participating in an interview.

I have received and read the letter outlines the issues that the interview will cover. I understand that I have the rights to answer only the questions I feel comfortable replying to.

I agree to be interview and give consent for it to be tape recorded. I understand that anything I say is confidential and that I can withdraw at any time.

Signed:

Date:

Name (Block Capitals):

## **Appendix 20: Letter to the Respondents**

**School of Applied Science,  
Ellison Building,  
Northumbria University,  
Newcastle upon Tyne.**

**‘MANAGING DISASTERS IN MALAYSIA:  
THE ATTITUDE OF OFFICIALS TOWARDS COMPLIANCE WITH  
THE MNSC DIRECTIVE 20’**

Dear Sir,

I am a PhD student sponsored by the Higher Education Minister of Malaysia, currently studying at Northumbria University in the United Kingdom, undertaking a study on the above topic. The main aim of the study is to gather actors' perspectives on the implementation of regulatory compliance in all level of Disaster Management Mechanism in Malaysia.

For your information, the Disaster Management Mechanism in Malaysia focus more in action plan in every level from national, state to district. At the same time the compliance with all Malaysia National Security Council (MNSC) Programme has to be implemented. All of the actors are hopefully should participate from department of national, state and district level who are involve in disaster management especially in providing emergency housing from administration level to technical, those who are responsible for the implementation of regulatory compliance.

In order to gather useful data, I hope that you will respond to all items in the questionnaire as honestly as possible. All information given will be held in the strictest of confidence, and only retained for my use within this study. This data will be held to secure circumstances and destroyed at the end of my study.

It is also hope that the findings of this study would be helpful to the Prime Minister's Department, in planning strategies to support actors in the implementation of regulatory compliance for the benefit to the actors and the disaster victims in Malaysia especially in awareness raising and capacity building.

Attention to:

1. Head of department;
2. Administrative officer; and
3. Technical officer.

Your corporation is most appreciated.

Thanks you

Ruhizal Roosli

## **Appendix 21: Details Answers to the Broad Questions (Sub-divided into Specific Research Questions)**

- What are the general attitudes of actors towards the intended implementation of regulatory compliance?
- How do actors' backgrounds influence their general attitudes?

### ***General conclusion***

The findings from the questionnaires showed that actors had broadly negative attitudes towards regulatory implementation. These negative general attitudes due to the fact that their negative cognitive and affective components of attitudes to regulatory compliance, although the conative components of attitudes being slightly neutral. They were unsure about their reactions towards the implementation of regulatory compliance but negatively thinking about the level of knowledge and understanding and also negatively accepting the concept from their internal feelings. However the tests did show that there were strong significant positive relationships between the three components of attitudes. The three components gave influenced to the way actors react to their perception towards the implementation of regulatory compliance. Statistically, there were no significant differences in actors' general attitudes to regulatory compliance based on their background characteristics of (1) Gender, (2) Number of Years Working, (3) Professional Status, (4) Level of control, and (5) Department has Specific Regulation towards Regulatory Compliance. Different Gender, Experience, Position, Mechanism and Availability of Specific Regulation had no influence towards the implementation of regulatory compliance. The background characteristic that seems to have significant influence on actors attitudes to regulatory compliance were Department that had Trained Actors, had Actors willing to Attend Trainings, had Actors taking care of Regulatory Compliance and Related to Emergency Housing. Actors provided thirteen reasons for opposing regulatory compliance implementation in their department.

- What is the actors' understanding of regulatory compliance?
- Is there any effect if the department has actors to look after regulatory compliance, related directly to the scene of emergency housing, have specific regulation to make sure compliance with the regulation?

### ***Actors' knowledge (K1), their abilities (K2) in regulatory compliance, Q5 and (independent variable 8, 9 and 10)***

The element of knowledge and abilities work together. The tests did show that there were strong significant positive relationships between the both elements. Statistically, background characteristics influenced the abilities but not the knowledge of actors. Only chairman, technical staff and clerical staff considered themselves as knowledgeable actors due to the fact that they were statistically significant. And only Chairman was the only group had high confidence in managing their own skills to apply regulatory compliance. Actors perceived themselves as unsure about their level of knowledge in regulatory compliance in MNSC Directive 20 although had a low confidence of their own ability to comply with regulations and guidelines. The knowledge and abilities of actors had not affected different level of control in the emergency mechanism in Malaysia. Actors in the national and state level considered themselves as positive and unsure about their knowledge in emergency management. Actors in the national and state level however perceived themselves as negative and undecided about their abilities to implement regulatory compliance. But the actors clearly admitted that they were lack of knowledge and confidence towards their own abilities in emergency management. The knowledge and abilities of actors contributed to the positive development of department that had actors to look after regulatory compliance due to the fact that there were statistically significant between both K1 and K2 and independent variable 'Actors to look after Regulatory Compliance.' There were no significant influence between both K1 and K2 and independent variable (1) Department Related to the Scene of Emergency Housing and (2) Department has Specific Regulation towards Regulatory Compliance. As results the knowledge and abilities of actors had no influence if the Department Related to the Scene of Emergency Housing or not and if the Department has Specific Regulations towards Regulatory Compliance or not.

- What do the actors and disaster victims get from the implementation of regulatory compliance?
- How effective the present MNSC Directive 20?
- Is there any effect if the department has actors to look after regulatory compliance, related directly to the scene of emergency housing, have specific regulation to make sure compliance with the regulation?

***Benefit (F1), perceived suitability (F2) of the regulations and guidelines to actors and disaster victims and (independent variable 8, 9 and 10)***

The tests did show that there were strong significant positive relationships between the both benefit (F1) and suitability (F2) of regulations and guidelines in MNSC Directive 20. They perceived that the programme is suitable if it is benefiting both actors and disaster victims. Actors perceived themselves as against the fact that regulatory compliance would benefit them and the disaster victims. They were not agreed that present MNSC Directive 20 is suitable for them and disaster victims. Statistically, background characteristics gave no influenced to the benefit and suitability of regulations and guidelines to the actors and disaster victims. However, regulatory compliance would give benefit and significantly suitable to the department related to the scene of emergency housing. The department that had actors to look after regulatory compliance would not going to get benefit from regulatory compliance but these departments considered as suitable to accept regulatory compliance implementation. Nevertheless the Department that had Specific Regulation towards Regulatory Compliance would not get benefit from regulatory compliance and the MNSC Directive 20 was not suitable for these departments statistically. Different level in Malaysian emergency mechanism did benefit from regulatory compliance but the MNSC Directive 20 not suitable to implement at every level of mechanism. The statement of suitability of regulatory compliance implementation was confirmed by the actors from national, state and district.

- What are some training developments to support regulatory compliance?
- What are some resources to support regulatory compliance?
- Is there any effect if the department has actors to look after regulatory compliance, related directly to the scene of emergency housing, have specific regulation to make sure compliance with the regulation?

***Support, training of actors (Q31, Q32 and Q33, independent variable 6 and 7) and (independent variable 8, 9 and 10)***

Statistically, background characteristics of actors did not influence actors' support of the MNSC Directive 20. Although the tests did show that there were strong significant positive relationships amongst the actors (1) ability to apply (K2), their (2) feeling, moods, emotions and sympathetic nervous system (Section B) and (3) willingness to attend relevant in-service training on regulatory compliance. If actors' internal feeling were positive that they were in high ability to implement regulatory compliance, they would prefer not willing to attend relevant in service training due to the fact that there was a negative correlation in actors willingness to attend relevant in service training. Statistically, the support and willingness to develop skills towards the regulatory compliance had no influenced by the (1) Department that had actors to look after regulatory compliance, (2) Department Related to the Scene of Emergency Housing' and (3) Department has Specific Regulation towards Regulatory Compliance. Chairmen was positively thinking that the actors willing to support and attend training in order to develop knowledge and skills in emergency management but not overall actors. Most of the actors presumed that they were unsure whether to support or object the implementation of regulatory compliance but clearly object towards their willingness to attend trainings. Simultaneously, they admitted that their department lack of actors trained in emergency housing. These facts supported by the actors in every level in the emergency management mechanism in Malaysia from national, state and district. Most of the actors perceived themselves as unsure whether to support or not the implementation but slightly had negative perception to volunteer themselves to attend in service training.

- How do actors' perceived ability to comply with regulations and their willingness to support regulatory compliance implementation?

***Actors' ability (K2), affective component (feeling) and support (Q31)***

Actor's ability (K2), feelings (affective component) and willingness to attend in-service training (Q31) had a strong relationship. The significant relationship is negative between both K2 and affective attitude towards their willingness to support the implementation of regulatory compliance (Q31). Even if actors' internal feeling were positive and were in high ability to implement regulatory compliance, they would prefer not to support the implementation of regulatory compliance because there was a negative correlation between actors' ability-affective component and willingness to support the implementation of regulatory compliance.

- How do victims influence regulatory compliance?

***Disaster victims rights (Q1, Q2, Q10, Q13 and Q14)***

The findings from Q10 and Q13 of the questionnaires showed that there was a conflict between actors' perceptions of the 'rights of disaster victims in regulatory compliance' and the 'benefit of rights disaster victims might get from MNSC Directive 20'. The actors perceived themselves as understanding the concept

of regulatory compliance and the implementation with the CMS 3.73 for Q1 and CMS 3.73 for Q2. They perceived themselves as negative towards the matter of 'rights of disaster victims in regulatory compliance' but were slightly neutral on the 'benefit of rights disaster victims might get from MNSC Directive 20'. They also denied that regulatory compliance might increase relationship between actors and disaster victims due to the fact that exposed to disaster victims would encourage actors to be more caring feelings. Thus, the findings indicated that the disaster victims do extend to the rights of equal opportunities in regulatory compliance with some adjustment to the present MNSC regulations and guidelines as clearly suggested in Q41.

- How do disaster victims respond to the regulatory compliance?

***Disaster victims' participations (Q11, Q12, Q10 and Q30), Q22 and (Q15, Q16, Q17, Q23, Q24 and Q25)***

Statistically, disaster victims' participations did increase actors working workloads and actors' background characteristics did influenced working responsibility if regulatory compliance implemented. Difference professional status had different loads of responsibilities. However background characteristics did not influenced actors' perceptions of disaster victims' suitability to be included into the process of regulatory compliance. Most actors had not sure whether it is suitable to get the disaster victims participated in the process of regulatory compliance. They highlighted that it was not appropriate to involve disaster victims with disruptive behaviour but might tolerate if the disaster victims not fully involve in decision making, the disaster victims with knowledge, the disaster victims without knowledge but had experience, disaster victims working as a group and not individually and lastly the interaction will not create complications. Actors' background characteristics did not influence the perception of actors in disaster victims work alone and none involvement of actors in disaster victims educations. Actors admitted that disaster victims should not be isolated but not sure whether to let the responsibility handling disaster victims to be left to the specialist only. Simultaneously, Actors' background characteristics did influenced the perceptions of actors in victim and actors should be working together and actors have a responsibility for the education of victim in the process of regulatory compliance. Different profession status effected to both of the perceptions. The chairmen, managers, technical staff members, clerical staff members and officers disagreed that they should work together with disaster victims and have to carry responsibility educate the disaster victims in the scene of emergency management.

- What are some of the key changes actors feel need to be undertaken prior to regulatory compliance implementation?

***Conditions of accepting regulatory compliance (Q34 and Q39)***

The findings for conditions for accepting regulatory compliance showed that actors may be persuaded to accept regulatory implementation, if certain conditions are met by the Prime Minister's Department the most popular condition was the need for specialist support to be provided whom might be the well trained in emergency housing and emergency management. This was also confirmed by chairmen, managers, and technical staff members, clerical staff members and officers, who agreed that actors would be willing to give regulatory compliance a chance if actors are given specialist support. Actors would also positively accept regulatory compliance if they are given the direct orders from their superiors, accept only disaster victims without disruptive behaviour and even volunteering themselves working towards regulatory compliance. The findings also showed that actors would not accept regulatory compliance voluntarily unless there are some changes in working with incentives and their contribution will be affected annual appraisal.

- How do actors' backgrounds influence these components of attitudes?

***Cognitive (understanding and knowledge) and independent variables of background characteristics***

Actors perceived themselves as having perception of negative capability towards their own understanding and knowledge in regulatory compliance. Variables that contributed to their own attitudes were different gender, how many experienced worked to the department, which level do they serve, whether they attended the training or not, whether the department has trained actors, whether the department has actors handling regulatory compliance or whether the department related to the scene of emergency housing or not. The main significant influenced from the actors that served to the department below 5 years and 16 to 20 years. The state and district level were the mechanism level that influenced most of the attitudes towards their understanding and knowledge in regulatory compliance implementation. Actors' professional status and the department with specific regulation towards regulatory compliance never influenced actors' attitudes in regulatory compliance.

- How do actors' backgrounds influence these components of attitudes?

***Affective (feeling, moods, emotions and sympathetic nervous system) and independent variables of background characteristics***

Actors perceived themselves as having perception of negative reactions towards their own feeling, moods, emotions and sympathetic nervous system in regulatory compliance. Different Level of Control, Attendance In-service Courses, Availability of Trained Actors in the Department, Availability of Actors to look after Regulatory Compliance, and Department Involvement to the Scene of Emergency Housing contributed to the ways actors react in regulatory compliance implementation. The variables that not affecting actors attitudes were Gender, Number of Years Working and Availability of Department with Specific Regulation towards Regulatory Compliance.

- How do actors' backgrounds influence these components of attitudes?

***Conative (behavioral response) and independent variables of background characteristics***

Actors perceive themselves as having perception of neutral behavioral response of attitudes in regulatory compliance. Actors' perception of affective attitude resulted from their differences in Gender, Professional Status, and Status of Attended In-service Courses, but not How Long they had been Working, which Level they Work, Availability of Trained Actors in Department, Availability of Actors to look after Regulatory Compliance, Department Related to the Scene of Emergency Housing, and Availability of Specific Regulation in Department towards Regulatory Compliance.

- Actors general perception on the MNSC Directive 20

***Views on the MNSC Directive 20 towards regulatory compliance in emergency housing (item no. 40) and changes or actions recommended by actors prior to regulatory compliance implementation (item no. 41).***

Most of actors were disagreed with the regulatory compliance plan. The most cited reason among actors who disagreed with the regulatory compliance was the perception that regulatory compliance would disrupt the normal routine of working process besides of other reasons such as workload increment, effect on actors and other disaster victims' adaptation and actors work without appropriate skills. Actors who were undecided used 'if' (more toward supporting the implementation) and 'but' (more toward against the implementation) for the reasons. Actors with the 'if', reasons were cited that they wanted to get more support such as information, trainings and resources. Meanwhile, actors with the 'but' reasons were cited that it is difficult to implement regulatory compliance due to disaster victims have behavioural problem, disaster victims' group is too large, regulatory compliance will increase actors' workload and needs to be planned carefully. Only few actors (11.1 per cent) agreed with the idea to implement regulatory compliance. They cited that the MNSC Directive 20 is formulated for good reasons such as to help in the realisation of the 'caring society'; would promote and develop self-esteem in actors and disaster victims and is in line with the national philosophy of equal opportunities (National Constitution: see section 4.1, p.92). However, most of actors (82 per cent) still wanted to see changes at the department level before regulatory compliance implementation even though some of them were against the implementation. The most cited suggestion were that actors should be given in-service training, the department should be articulate on the rationale of implementing regulatory compliance and all department involved in the regulatory compliance programme should be provided with appropriate physical resources and working equipments.

***Conclusion***

The result indicates that actors were knowledgeable about regulatory compliance and perceived themselves as having the appropriate and necessary skills in line of duties, they would be likely to exhibit positive feelings towards regulatory compliance, and may then be the more willing to accept its implementation. The real fact was that actors were unwilling to accept regulatory compliance in the present climate. Actors do wish to see changes at the department level before regulatory compliance is implemented. Yet actors in general are also of the opinion that actors would accept regulatory compliance if directed by the Prime Minister's Department. As civil servants actors are of course required to observe and implement Prime Minister's Department directives. Nevertheless in the light of the present research evidence there may be need for careful preparation at several levels before regulatory compliance implementation. Careful preparation might be vital to secure maximum co-operation from the working force and to prevent alienation and consequent failure. As a result, the questionnaire findings showed that generally actors have negative attitudes to regulatory compliance.

## Appendix 22: Details of Quantitative Analysis

### a. Cognitive Component

#### Influence of Actors' Background Characteristics (independent variables) on the Cognitive Components of Attitudes (dependent variables) to Regulatory Compliance

The result of statistical tests (one way ANOVA) shows that there were significant differences in the perception of actors' general cognitive component for the independent variable of (1) Gender {F(1, 411) = 4.54,  $p < 0.05$ }, (2) Number of Years Working {F(4, 408) = 2.91,  $p < 0.05$ }, (3) Level of Control {F(2, 410) = 3.75,  $p < 0.05$ }, (4) Attended In-service Courses {F(1, 411) = 6.94,  $p < 0.05$ }, (5) Availability of Trained Actors {F(1, 411) = 7.13,  $p < 0.05$ }, (6) Actors to look after Regulatory Compliance {F(1, 411) = 12.63,  $p < 0.05$ }, and (7) Department Related to the Scene of Emergency Housing {F(1, 411) = 5.84,  $p < 0.05$ }. Tukey HSD in Post-hoc tests for number of years working shows that significance difference occur between the group of working below 5 years and 16 to 20 years. Tukey HSD in Post-hoc tests for level of control shows that significance difference occurs between pair group of the state level and district.

The result of statistical tests (one way ANOVA) shows that there was no significant differences in the perception of actors' general cognitive component for the independent variable of (1) Professional Status {F(4, 408) = 0.06,  $p > 0.05$ } and (2) Department has Specific Regulation towards Regulatory Compliance {F(1, 411) = 0.52,  $p > 0.05$ }.

**Table 7.21: CMS, Frequency and Percentage Scores of General Cognitive Component of Attitude to Regulatory Compliance of Actors' Background Characteristics**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
	CMS	f	%	f	%	f	%	
General cognitive attitude	2.32 ± 0.44	211	51.0	147	35.6	55	13.4	413
<i>a. Gender</i>								
Male	2.36 ± 0.29	144	49.4	106	36.3	41	14.2	291
Female	2.26 ± 0.37	66.7	54.6	41	33.9	14	11.5	122
<i>b. Number of Years Working</i>								
Under 5	2.47 ± 0.27	36	44.9	31	38.3	14	16.9	81
6 to 10	2.33 ± 0.31	54	50.6	39	36.7	13	12.7	106
11 to 15	2.33 ± 0.31	31	50.1	22	36.4	8	13.5	61
16 to 20	2.21 ± 0.33	46	56.7	27	33.3	8	10.0	81
More than 20	2.29 ± 0.31	44	52.5	28	33.3	12	14.2	84
<i>c. Professional Status</i>								
Chairman	2.70 ± 0.25	4	48.1	2	18.5	3	33.3	9
Manager	2.32 ± 0.40	30	51.2	21	36.3	7	12.4	59
Technical	2.31 ± 0.45	52	51.4	37	36.3	13	12.3	102
Clerical	2.31 ± 0.43	56	51.2	40	36.4	14	12.4	109
Officer	2.33 ± 0.46	68	50.6	47	35.3	19	14.1	134



		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
d. Level of Control								
National	2.41 ± 0.41	26	47.9	19	36.0	9	16.0	54
State	2.37 ± 0.46	99	48.8	74	36.7	29	14.5	202
District	2.24 ± 0.35	86	54.8	53	34.0	17	11.1	157
e. Attended In-service Courses								
Yes	2.41 ± 0.31	80	47.5	61	36.4	27	16.2	169
No	2.26 ± 0.33	130	53.4	86	35.1	28	11.5	244
f. Availability of Trained Actors								
Yes	2.41 ± 0.31	83	47.5	64	36.6	28	15.9	174
No	2.27 ± 0.34	128	53.5	83	34.9	28	11.6	239
g. Actors to look after Regulatory Compliance								
Yes	2.42 ± 0.34	81	46.4	66	37.7	28	15.9	175
No	2.26 ± 0.32	129	54.3	81	34.1	27	11.5	238
h. Department Related to the Scene of Emergency Housing								
Yes	2.40 ± 0.31	82	47.8	62	35.8	28	16.4	172
No	2.27 ± 0.33	128	53.3	86	35.5	27	11.2	241
i. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.33 ± 0.33	72	52.1	48	34.5	19	13.3	139
No	2.33 ± 0.32	138	50.4	99	36.2	37	13.4	274

Source: Author

CMS (Table 7.21) shows that actors perceived themselves as having perception of negative capability towards their own understanding and knowledge in regulatory compliance. Only 13.4 per cent of actors have a high (positive) perception of their capability, with 35.6 per cent undecided. There was statistically difference between actors' perception of cognitive attitude for the independent variables (1) Gender, (2) Number of Years Working, (3) Level of Control, (4) Attended In-service Courses, (5) Availability of Trained Actors, (6) Actors to look after Regulatory Compliance, and (7) Department Related to the Scene of Emergency Housing. Statistically significant differences of perception also occur between group of working below 5 years and 16 to 20 years. Statistically significant differences of perception also occur between pair groups of the state level and district.

There was no statistically difference between actors' perception of cognitive attitudes for the independent variables of (1) Professional Status and (2) Department has Specific Regulation towards Regulatory Compliance. CMS (Table 7.21) shows that actors perceive themselves as having perception of negative capability towards their own understanding and knowledge in regulatory compliance. Only 13.4 per cent of actors have a high (positive) perception of their capability, with 35.6 per cent undecided. There were slightly positive attitudes from the chairmen that contributed 33.3 per cent from overall attitudes. Standard deviations show that there were few differences of perception regarding actors' general cognitive component within groups of actors. There was no statistically difference between actors' perception of cognitive attitudes.

Influence of Actors' Background (independent variables) on (1) Actors to Look After Regulatory Compliance, (2) Department Related to the Scene of Emergency Housing, and (3) Department has Specific Regulation towards Regulatory Compliance, on K1 and K2

Multivariate tests showed that there were a statistically significant differences between the background characteristics of actors to look after regulatory compliance  $\{W\lambda = 0.97, F(2, 410) = 5.78, p < 0.05\}$  for the dependent variable K1 and K2.

There were no statistically significant differences between the background characteristics of Department Related to the Scene of Emergency Housing  $\{W\lambda = 0.99, F(2, 410) = 1.51, p > 0.05\}$  for the dependent variable K1 and K2.

There was no statistically significant differences between the background characteristics of Department has Specific Regulation towards Regulatory Compliance  $\{W\lambda = 0.99, F(2, 410) = 0.13, p > 0.05\}$  for the dependent variable K1 and K2.

**Table 7.22: CMS, Frequency, Percentage Scores for K1**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
a. Actors to Look After Regulatory Compliance								
Yes	2.85 ± 0.24	36	20.7	94	53.5	45	25.8	175
No	2.62 ± 0.35	71	29.7	123	51.8	44	18.4	238
b. Department Related to the Scene of Emergency Housing								
Yes	2.83 ± 0.25	38	22.3	89	52.0	44	25.7	171
No	2.64 ± 0.34	69	28.5	128	52.9	45	18.6	242
c. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.69 ± 0.35	38	27.2	73	52.8	28	20.0	139
No	2.74 ± 0.32	69	25.3	144	52.4	61	22.3	274

Source: Author

CMS (Table 7.22) shows that actors for all groups of the three independent variables mentioned have generally a non-committal perception of K1. Statistical tests show that the department that had actors to look after regulatory compliance had a significantly more favourable perception of K1 compared to department without such actors. There was no statistically difference between actors' perception of K1, for the two independent variables (1) Department Related to the Scene of Emergency Housing, and (2) Department has Specific Regulation towards Regulatory Compliance.

**Table 7.23: CMS, Frequency, Percentage Scores for K2**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
a. Actors to Look After Regulatory Compliance								
Yes	1.87 ± 0.35	137	78.6	32	17.9	6	3.6	175
No	1.81 ± 0.32	202	85.1	29	12.0	7	2.9	238
b. Department Related to the Scene of Emergency Housing								
Yes	1.87 ± 0.34	137	79.7	27	15.6	8	4.8	172
No	1.81 ± 0.35	203	84.2	32	13.7	6	2.1	241
c. Department has Specific Regulation towards Regulatory Compliance								
Yes	1.89 ± 0.34	116	83.3	16	11.7	7	5.0	139
No	1.81 ± 0.34	224	81.8	43	15.9	7	2.6	274

Source: Author

CMS (Table 7.23) shows that actors for all groups of the three independent variables mentioned have generally a negative perception of K1. Statistical tests show that the department that had actors to look after regulatory compliance had a significantly more favourable perception of K2 compared to department without such actors. There was no statistically difference between actors' perception of K2, for the two independent variables (1) Department Related to the Scene of Emergency Housing, and (2) Department has Specific Regulation towards Regulatory Compliance.

#### Influence of Actors' Level of Control on the Dependent Variable Actors' Perceived Knowledge of the MNSC Directive 20, K1

There was no statistically (one way ANOVA) significant differences between the background characteristics of level control {F (2, 410) = 0.65, p> 0.05} for the dependent variable K1.

**Table 7.24: CMS, Frequency and Percentage Scores for K1**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
K1 attitude	2.72 ± 0.34	107	25.9	217	52.5	89	21.5	413
National	2.81 ± 0.36	12	22.6	28	52.6	14	24.8	54
State	2.79 ± 0.33	46	22.7	108	53.7	48	23.7	202
District	2.60 ± 0.33	49	31.2	80	51.1	28	17.7	157

Source: Author

CMS (Table 7.24) shows that actors for all groups had generally a non-committal perception of the independent variables level of control for the dependent variable K1. There was no statistically difference between actors' perception of K1, for the independent variables of level control.

#### Influence of Actors' Level of Control on the Dependent Variable Actors' Perceived Abilities Apply Regulatory Compliance, K2

There was no statistically (one way ANOVA) significant differences between the background characteristics of level control {F (2, 410) = 0.80, p> 0.05} for the dependent variable K2.

**Table 7.25: CMS, Frequency and Percentage Scores for K2**

		Grouping/Frequency/Percentage/n							
		Group 1		Group 2		Group 3		n	
		f	%	f	%	f	%		
K2 attitude	CMS	1.83 ± 0.35	172	41.7	189	45.8	51	12.4	413
National		1.91 ± 0.30	19	35.8	28	51.9	7	12.3	54
State		1.84 ± 0.33	75	37.1	100	49.3	27	13.5	202
District		1.80 ± 0.33	78	49.7	62	39.2	17	11.0	157

Source: Author

Cumulatively in CMS the perception more towards negative perceptions. Percentage scattered (Table 7.25) shows that actors for all groups had generally in the middle of negative and neutral perception of the independent variables level of control for the dependent variable K1. There was no statistically difference between actors' perception of K1, for the independent variables of level control.

### **Response to an Item in Section A of Attitudinal Scale**

#### **Item no. 5: Actors do have the Necessary Skills to Apply Regulatory Compliance**

The result of statistical tests (one way ANOVA) shows that there was significant differences in the perception of Q5 for the independent variable of Professional Status of actors {F (4, 408) = 4.56, p< 0.05}. Tukey HSD in Post-hoc tests for Q5 shows that significance difference occur between pair group of (1) Chairman and Manager, (2) Chairman and Technical, (3) Chairman and Clerical, and (4) Chairman and Officer.

**Table 7.26: CMS, Frequency and Percentage Scores for Q5**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q5 attitude	1.81 ± 0.35	342	83.8	58	14.0	13	3.1	413
Chairman	2.89 ± 0.38	6	66.7	0	0.0	3	33.3	9
Manager	1.88 ± 0.37	47	79.7	11	18.6	1	1.7	59
Technical	1.81 ± 0.30	85	83.3	14	13.7	3	2.9	102
Clerical	1.77 ± 0.34	92	84.4	15	13.8	2	1.8	109
Officer	2.75 ± 0.36	112	83.6	18	13.4	4	3.0	134

Source: Author

CMS (Table 7.26) shows that actors perceive themselves as having low (negative) capability managing necessary skills in regulatory compliance. Only 3.1 per cent of actors have a high (positive) perception of their capability, with 14.0 per cent undecided. Chairman was the only group had high confidence in managing their own skills to apply regulatory compliance with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was statistically difference between actors' perception of actors with necessary skills for the independent variables of professional status. Statistically significant differences of perception also occur between actors with all groups (Chairman, Manager, Technical, Clerical and Officer).

**b. Affective Component**

Influence of Actors' Background Characteristics (independent variables) on the Affective Components of Attitudes (dependent variables) to Regulatory Compliance

The result of statistical tests (one way ANOVA) shows that there were significant differences in the perception of actors' general affective component for the independent variable of (1) Level of Control {F (2, 410) = 3.07,  $p < 0.05$ }, (2) Attended In-service Courses {F(1, 411) = 6.29,  $p < 0.05$ } (3) Availability of Trained Actors {F(1, 411) = 5.76,  $p < 0.05$ }, (4) Actors to look after Regulatory Compliance {F(1, 411) = 4.89,  $p < 0.05$ }, and (5) Department Related to the Scene of Emergency Housing {F(1, 411) = 5.49,  $p < 0.05$ }. Tukey HSD in Post-hoc tests for general cognitive component shows that significance differences occur between the level pair group of state and district.

The result of statistical tests (one way ANOVA) shows that there was no significant differences in the perception of actors' general cognitive component for the independent variable of (1) Gender {F(1, 411) = 2.34,  $p > 0.05$ }, (2) Number of Years Working {F(4, 408) = 2.16,  $p > 0.05$ }, (3) Professional Status {F (4, 408) = 0.27,  $p > 0.05$ }.and (4) Department has Specific Regulation towards Regulatory Compliance {F(1, 411) = 0.69,  $p > 0.05$ }.

**Table 7.27: CMS, Frequency and Percentage Scores of General Affective Component of Attitude to Regulatory Compliance of Actors' Background Characteristics**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
General affective attitude	2.42 ± 0.28	218	52.7	129	31.2	66	16.1	413
a. Gender								
Male	2.45 ± 0.33	149	51.1	96	32.9	47	16.1	291
female	2.35 ± 0.31	69	56.6	33	27.3	20	16.1	122
b. Number of Years Working								
Under 5	2.58 ± 0.32	36	44.3	29	35.7	16	20.0	82
6 to 10	2.38 ± 0.34	58	54.5	32	30.4	16	16.1	106
11 to 15	2.42 ± 0.32	32	52.5	19	31.2	10	16.3	61
16 to 20	2.28 ± 0.32	48	59.2	23	28.7	10	12.1	81
More than 20	2.43 ± 0.33	44	52.4	26	30.4	14	17.1	84
c. Professional Status								
Chairman	2.72 ± 0.24	5	55.6	1	12.2	3	33.3	9
Manager	2.42 ± 0.32	30	51.0	20	33.1	9	15.9	59
Technical	2.37 ± 0.26	55	54.3	31	30.8	15	14.8	102
Clerical	2.37 ± 0.27	59	54.0	34	31.3	16	14.6	102
Officer	2.46 ± 0.29	68	50.8	43	32.0	23	17.2	134
d. Level of Control								
National	2.49 ± 0.29	27	49.1	19	35.0	9	15.9	54
State	2.47 ± 0.29	100	49.6	67	33.1	35	17.3	202
District	2.31 ± 0.26	91	57.8	43	27.6	23	14.6	157

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
e. Attended In-service Courses								
Yes	2.56 ± 0.32	81	47.8	56	33.0	33	19.2	169
No	2.39 ± 0.34	137	56.0	72	30.3	33	13.9	244
f. Availability of Trained Actors								
Yes	2.56 ± 0.32	84	48.1	57	32.5	34	19.3	174
No	2.39 ± 0.34	134	56.0	72	30.3	33	13.7	239
g. Actors to look after Regulatory Compliance								
Yes	2.56 ± 0.32	85	48.5	57	32.6	33	18.9	175
No	2.39 ± 0.34	133	55.8	72	30.3	33	13.9	238
h. Department Related to the Scene of Emergency Housing								
Yes	2.56 ± 0.32	83	48.2	56	32.4	33	19.4	172
No	2.39 ± 0.34	135	55.9	73	30.4	33	13.7	241
i. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.56 ± 0.32	76	54.6	42	29.9	22	15.5	139
No	2.39 ± 0.34	172	51.7	87	31.9	45	16.4	274

Source: Author

CMS (Table 7.27) shows that actors perceived themselves as having perception of negative reactions towards their own feeling, moods, emotions and sympathetic nervous system in regulatory compliance. Only 16.1 per cent of actors have a high (positive) perception of their reactions, with 31.2 per cent undecided. There were slightly positive attitudes from the chairmen that contributed 33.3 per cent from overall attitudes. Standard deviations show that there were few differences of perception regarding actors' general affective component within groups of actors. There was statistically difference between actors' perception of affective attitude for the independent variables (1) Level of Control, (2) Attended In-service Courses, (3) Availability of Trained Actors, (4) Actors to Look After Regulatory Compliance, and (5) Department Related to the Scene of Emergency Housing. Statistically significant differences of perception also occur between pair groups of the state level and district.

There was no statistically difference between actors' perception of cognitive attitudes for the independent variables of (1) Gender, (2) Number of Years Working, and (3) Department has Specific Regulation towards Regulatory Compliance.

Influence of Actors' Background (independent variables) on (1) Actors to Look After Regulatory Compliance, (2) Department Related to the Scene of Emergency Housing, and (3) Department has Specific Regulation towards Regulatory Compliance, on F1 and F2

Multivariate tests showed that there was a statistically significant relationship between the background characteristics of Actors to look after Regulatory Compliance { $W\lambda = 0.98$ ,  $F(2, 410) = 3.87$ ,  $p < 0.05$ } for the dependent variable F1, { $F(1, 411) = 5.84$ ,  $p < 0.05$ } and F2, { $F(1, 411) = 7.53$ ,  $p < 0.05$ }.

There were statistically significant relationship between the background characteristics of Department Related to the Scene of Emergency Housing { $W\lambda = 0.98$ ,  $F(2, 410) = 3.67$ ,  $p < 0.05$ } for the dependent variable F1 and F2. Univariate F-tests showed that there were no significant difference between knowledge (F1), { $F(1, 411) = 3.16$ ,  $p > 0.05$ } mean refers to Actors to look after Regulatory Compliance. But, there were significant difference between knowledge (F2), { $F(1, 411) = 7.17$ ,  $p < 0.05$ } mean refers to Actors to look after Regulatory Compliance.

There was no statistically significant relationship between the background characteristics of Department has Specific Regulation towards Regulatory Compliance  $\{W\lambda = 0.99, F(2, 410) = 0.34, p > 0.05\}$  for the dependent variable F1,  $\{F(1, 411) = 0.60, p > 0.05\}$  and F2,  $\{F(1, 411) = 0.60, p > 0.05\}$ .

**Table 7.28: CMS, Frequency, Percentage Scores for F1**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		CMS	f	%	f	%	f	
a: Actors to look after Regulatory Compliance								
Yes	2.27 ± 0.32	84	48.0	72	41.0	19	11.0	175
No	2.09 ± 0.31	137	57.8	82	34.3	19	7.8	238
b. Department Related to the Scene of Emergency Housing								
Yes	2.28 ± 0.32	85	49.4	66	38.6	21	12.0	172
No	2.08 ± 0.32	137	56.7	87	36.1	17	7.2	241
c. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.13 ± 0.37	78	55.9	48	34.8	13	9.4	139
No	2.18 ± 0.32	144	52.6	105	38.3	25	9.1	274

Source: Author

CMS (Table 7.28) shows that actors for all groups of the three independent variables mentioned have generally a negative perception of F1. Statistical tests show that the department that had Department Related to the Scene of Emergency Housing had a significantly more favourable perception of F1 compared to department without such department. There were no statistically difference between actors' perception of F1, for the two independent variables (1) Actors to Look after Regulatory Compliance, and (2) Department has Specific Regulation towards Regulatory Compliance.

**Table 7.29: CMS, Frequency, Percentage Scores for F2**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		CMS	f	%	f	%	f	
a. Actors to look after Regulatory Compliance								
Yes	2.47 ± 0.32	64	36.2	86	49.3	25	14.5	175
No	2.27 ± 0.34	109	45.8	103	43.3	26	10.9	238
b. Department Related to the Scene of Emergency Housing								
Yes	2.48 ± 0.31	62	36.2	84	48.8	26	14.9	172
No	2.26 ± 0.33	110	45.6	105	43.7	26	10.7	241
c. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.31 ± 0.35	61	43.6	61	44.1	17	12.2	139
No	2.38 ± 0.30	112	40.8	128	46.7	34	12.5	274

Source: Author

CMS (Table 7.29) shows that actors for all groups of the three independent variables mentioned have generally a negative perception of F2. Statistical tests show that (1) Actors to Look after Regulatory Compliance, and (2) The department that had Department Related to the Scene of Emergency Housing had a significantly more favourable perception of F2 compared to department without (1) and (2). There was no statistically difference between actors' perception of F2, for the two independent variables department has specific regulation towards regulatory compliance.

Influence of Actors' Level of Control on the Dependent Variables of Actors' Perceived Advantages/Disadvantages of Disaster Victims' Development When Included in the Decision Making of Regulatory Compliance (F1)

There was no statistically (one way ANOVA) significant differences between the background characteristics of level control {F (2, 410) = 0.48, p> 0.05} for the dependent variable F1.

**Table 7.30: CMS, Frequency and Percentage Scores for F1**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
F1 attitude	2.17 ± 0.35	222	53.7	153	37.2	38	9.2	413
National	2.13 ± 0.39	31	57.4	19	34.6	4	8.0	54
State	2.20 ± 0.32	105	51.8	76	37.8	21	10.3	202
District	2.14 ± 0.34	86	54.8	58	37.0	13	8.1	157

Source: Author

CMS (Table 7.30) shows that actors perceive themselves as having perception of negative reactions towards the benefit of regulatory compliance to actors and disaster victims in regulatory compliance. Standard deviations show that there were few differences of perception regarding actors' general F1 within groups of actors. There was no statistically difference between actors' perception of F1 attitude for the independent variables level control. The differences of opinion between actors' knowledge of regulatory compliance were significant statistically.

Influence of Actors' Level of Control on the Dependent Variables of Actors' Perceived Suitability of the Current MNSC Directive 20 towards Regulatory Compliance (F2)

There was statistically (one way ANOVA) significant differences between the background characteristics of Level Control {F (2, 410) = 6.58, p< 0.05} for the dependent variable F2. Tukey HSD in Post-hoc tests for Q10 shows that significance differences occur between pair group of (1) National and State and (2) National and District.

**Table 7.31: CMS, Frequency and Percentage Scores for F2**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
F2 attitude	2.36 ± 0.34	172	41.7	189	45.8	51	12.4	413
National	2.44 ± 0.37	19	35.8	28	51.9	7	12.3	54
State	2.46 ± 0.32	75	37.1	100	49.3	27	13.5	202
District	2.20 ± 0.34	78	49.7	62	39.2	17	11.0	157

Source: Author



CMS (Table 7.31) shows that actors perceive themselves as having perception of negative reactions towards the suitability of the regulations and guidelines to actors and disaster victims. Table 7.31 also shows that at the national and state level the actors had neutral perception with contribution of 51.9 per cent and 49.3 per cent in percentage. Standard deviations show that there were few differences of perception regarding actors' general F2 within groups of actors. The differences of opinion between actors' general F2 of regulatory compliance were significant statistically for the independent variables level of control.

### **Response to Items in Section B of Attitudinal Scale**

#### **Influence of Items 10 and 13: Actors' Perception of the 'Rights' of Disaster Victims' Needs to be Educated Together in the Disaster Environment**

Multivariate tests showed that there were statistically significant differences between the background characteristics of Professional Status  $\{W\lambda = 0.96, F(8, 814) = 1.98, p < 0.05\}$  for the dependent variable Q10 and Q13. Univariate F-tests showed that there were significant difference between (Q10),  $\{F(4, 408) = 3.83, p < 0.05\}$  mean refers to actors Professional Status. But, there were no significant difference between Q13,  $\{F(4, 408) = 0.28, p > 0.05\}$  mean refers to Professional Status.

Tukey HSD in Post-hoc tests for Q10 shows that significance differences occur between pair group of (1) Chairman and Manager, (2) Chairman and Technical, (3) Chairman and Clerical, and (4) Chairman and Officer.

**Table 7.32: CMS, Frequency and Percentage Scores for Item 10**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q10 attitude	2.00 ± 0.33	301	72.9	89	21.5	23	33.3	413
Chairman	2.44 ± 0.44	6	66.7	0	0.0	3	33.3	9
Manager	2.00 ± 0.30	40	67.8	15	25.4	4	6.8	59
Technical	1.93 ± 0.37	77	75.0	22	21.6	3	2.9	102
Clerical	1.93 ± 0.37	83	76.1	21	19.2	5	4.6	109
Officer	2.07 ± 0.37	95	71.0	31	23.1	8	5.9	134

Source: Author

CMS (Table 7.32) shows that actors perceive themselves as having low (negative) of acceptance that victim has the rights to regulatory compliance. Only 33.3 per cent of actors have a high (positive) perception of acceptance, with 21.5 per cent undecided. Chairman was the only group had high attitude to accept that disaster victims has the rights in regulatory compliance with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was statistically difference between actors' perception of actors admitted that disaster victims had the rights for the independent variables of Professional Status. Statistically significant differences of perception also occur between actors with all Groups (Chairman, Manager, Technical, Clerical and Officer).

**Table 7.33: CMS, Frequency and Percentage Scores for Item 13**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q13 attitude	2.86 ± 0.39	181	43.8	86	20.8	146	35.4	413
Chairman	2.89 ± 0.33	5	55.6	1	11.1	3	33.3	9
Manager	2.97 ± 0.31	26	44.1	11	18.6	22	37.3	59
Technical	2.68 ± 0.38	49	48.0	20	19.6	33	32.4	102
Clerical	2.87 ± 0.31	47	43.1	25	22.9	37	33.9	109
Officer	2.96 ± 0.30	54	40.3	29	21.6	51	38.1	134

Source: Author

CMS (Table 7.33) shows that actors perceive themselves as having neutral attitudes towards the issue of that the MNSC Directive 20 is right in giving special attention to the victim needs regulatory compliance. Contradiction between three types of attitudes that was considered as negative (43.8 per cent), neutral (20.8 per cent) and positive (35.4 per cent) attitudes resulted the overall attitudes as neutral (CMS 2.86). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that the MNSC Directive 20 is right in giving special attention to the victim needs regulatory compliance for the independent variables of Professional Status.

#### Influence of Item 11, 12, 29 and 30: Actors Feeling towards Regulatory Compliance Need into Disaster Victims' Participatory

Multivariate tests showed that there were statistically significant differences between the background characteristics of Professional Status  $\{W\lambda = 0.89, F(16, 1237) = 2.82, p < 0.05\}$  for the dependent variable Q11, Q12, Q29, and Q30. Univariate F-tests showed that there were statistically significant relationship between the background characteristics of Professional Status for the dependent variable Q11,  $\{F(4, 408) = 6.69, p < 0.05\}$  and Q30,  $\{F(4, 408) = 3.58, p < 0.05\}$ . But, Univariate F-tests showed that there were no statistically significant relationship between the background characteristics of Professional Status for the dependent variable Q12,  $\{F(4, 408) = 0.32, p > 0.05\}$  and Q29,  $\{F(4, 408) = 0.29, p > 0.05\}$ .

Tukey HSD in Post-hoc tests for Q11 and Q30 shows that significance differences occur between pair group of (1) Chairman and Manager, (2) Chairman and Technical, (3) Chairman and Clerical, and (4) Chairman and Officer.

**Table 7.34: CMS, Frequency and Percentage Scores for Item 11**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q11 attitude	1.94 ± 0.21	323	78.2	73	17.7	17	4.1	413
Chairman	2.67 ± 0.73	5	55.6	1	11.1	3	33.3	9
Manager	2.12 ± 0.28	43	72.9	11	18.6	5	8.5	59
Technical	1.90 ± 0.34	84	82.4	17	16.7	1	1.0	102
Clerical	1.83 ± 0.31	89	81.7	17	11.6	3	2.8	109
Officer	1.93 ± 0.31	102	76.1	27	20.1	5	3.7	134

Source: Author

CMS (Table 7.34) shows that actors perceive themselves as having low (negative) of acceptance that victim and actors should be working together. Only 4.1 per cent of actors have a high (positive) perception of acceptance, with 17.7 per cent undecided. Chairman was the only group had high attitude to accept that victim and actors should be working together with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was statistically difference between actors' perception of actors admitted that victim and actors should be working together for the independent variables of Professional Status. Statistically significant differences of perception also occur between actors with all groups (Chairman, Manager, Technical, Clerical and Officer).

**Table 7.35: CMS, Frequency and Percentage Scores for Item 12**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
	CMS	f	%	f	%	f	%	
Q12 attitude	2.10 ± 0.35	284	68.8	97	23.5	32	7.7	413
Chairman	2.22 ± 0.35	7	77.8	0	0.0	2	22.2	9
Manager	2.07 ± 0.33	39	66.1	17	28.8	3	5.1	59
Technical	2.13 ± 0.33	71	70.0	22	21.6	9	8.8	102
Clerical	2.07 ± 0.33	78	71.6	24	22.0	7	6.4	109
officer	2.10 ± 0.30	89	66.4	34	25.4	11	8.2	134

Source: Author

CMS (Table 7.35) shows that actors perceive themselves as having low (negative) of acceptance that victim can not best be served through separate entity without actors. Only 7.7 per cent of actors have a high (positive) perception of acceptance, with 23.5 per cent undecided. Chairman was the only group had high attitude to accept that victim can not best be served through separate entity without actors with 22.2 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim can not best be served through separate entity without actors for the independent variables of Professional Status.

**Table 7.36: CMS, Frequency and Percentage Scores for Item 29**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
	CMS	f	%	f	%	f	%	
Q29 attitude	2.71 ± 0.34	186	45.0	124	30.0	103	24.9	413
Chairman	3.22 ± 0.51	3	33.3	3	33.3	3	33.3	9
Manager	2.66 ± 0.35	29	49.2	15	25.4	15	25.4	59
Technical	2.65 ± 0.26	34	33.3	20	19.6	68	66.7	102
Clerical	2.70 ± 0.31	49	44.9	32	29.4	28	25.7	109
Officer	2.76 ± 0.35	40	29.8	37	27.6	57	42.6	134

Source: Author

CMS (Table 7.36) shows that actors perceive themselves as having neutral attitudes towards the matter to educate disaster victims should not be left to specialist in disaster recovery or psychologist. Contradiction between three types of attitudes that was considered as negative (45.0 per cent), neutral (30.0

per cent) and positive (24.9 per cent) attitudes resulted the overall attitudes as neutral (CMS 2.71). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that the matter to educate disaster victims should not be left to specialist in disaster recovery or psychologist for the independent variables of Professional Status.

**Table 7.37: CMS, Frequency and Percentage Scores for Item 30**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q30 attitude	2.21 ± 0.32	265	64.2	122	29.5	26	6.3	413
Chairman	2.56 ± 0.35	6	66.7	0	0.0	3	33.3	9
Manager	2.10 ± 0.31	39	66.1	17	28.8	3	5.1	59
Technical	2.15 ± 0.35	68	66.7	27	26.5	7	6.9	102
Clerical	2.19 ± 0.32	71	65.1	35	32.1	3	2.8	109
Officer	2.28 ± 0.37	81	60.4	43	32.1	10	7.5	134

Source: Author

CMS (Table 7.37) shows that actors perceive themselves as having low (negative) of acceptance that actors have a responsibility for the education of victim in the process of regulatory compliance. Only 6.3 per cent of actors have a high (positive) perception of acceptance, with 29.5 per cent undecided. Chairman was the only group had high attitude to accept that actors have a responsibility for the education of victim in the process of regulatory compliance with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was statistically difference between actors' perception of actors admitted that actors have a responsibility for the education of victim in the process of regulatory compliance for the independent variables of Professional Status. Statistically significant differences of perception also occur between actors with all groups (Chairman, Manager, Technical, Clerical and Officer).

#### Influence of Item 14: Perceived Effect to Disaster Victims' Development as the Result of Regulatory Compliance

There were no statistically (one way ANOVA) significant differences between the background characteristics of professional status {F (4, 408) = .081, p> 0.05} for the dependent variable Q14.

**Table 7.38: CMS, Frequency and Percentage Scores for item 14**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q14 attitude	2.02 ± 0.36	296	71.7	103	24.9	14	3.4	413
Chairman	2.67 ± 0.65	5	66.7	1	11.1	3	33.3	9
Manager	1.97 ± 0.25	42	71.2	16	27.1	1	1.7	59
Technical	1.97 ± 0.35	79	77.5	19	18.6	4	3.9	102
Clerical	1.77 ± 0.34	77	70.6	29	26.6	3	2.7	109
Officer	2.06 ± 0.34	93	69.4	38	28.4	3	2.2	134

Source: Author

CMS (Table 7.38) shows that actors perceive themselves as having low (negative) of acceptance that exposure to victim will encourage actors to be more caring feelings. Only 7.7 per cent of actors have a high (positive) perception of acceptance, with 23.5 per cent undecided. Chairman was the only group had high attitude to accept that exposure to victim will encourage actors to be more caring feelings with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that exposure to victim will encourage actors to be more caring feelings for the independent variables of Professional Status.

**Influence of Item 15, 16, 17, 23, 24 and 25: Actors Perceived Suitability of Disaster Victims' to be Included into the Process of Regulatory Compliance**

Multivariate tests showed that there were no statistically significant relationship between the background characteristics of Professional Status {W $\lambda$  = 0.89, F (24, 1407) = 0.59, p> 0.05} for the dependent variable Q15, Q16, Q17, 23, 24 and Q25. Univariate F-tests showed that there were no statistically significant relationship between the background characteristics of Professional Status for the dependent variable Q15, {F (4, 408) = 1.06, p> 0.05} Q16, {F (4, 408) = 0.38, p> 0.05}, Q17, {F (4, 408) = 0.21, p> 0.05}, Q23, {F (4, 408) = 0.65, p> 0.05}, Q24, {F (4, 408) = 0.142, p> 0.05} and Q25, {F (4, 408) = 0.59, p> 0.05}.

**Table 7.39: CMS, Frequency and Percentage Scores for Item 15**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q15 attitude	2.73 $\pm$ 0.37	177	42.9	138	33.4	98	23.7	413
Chairman	3.33 $\pm$ 0.60	3	33.3	3	33.3	3	33.3	9
Manager	2.66 $\pm$ 0.27	27	45.8	20	33.9	12	20.3	59
Technical	2.63 $\pm$ 0.30	47	46.0	32	31.4	23	22.5	102
Clerical	2.77 $\pm$ 0.24	41	37.6	42	38.5	26	23.9	109
Officer	2.78 $\pm$ 0.35	59	44.0	41	30.6	34	25.4	134

Source: Author

CMS (Table 7.39) shows that actors perceive themselves as having neutral attitudes towards the matter that it is appropriate to fully include victim in making decision towards regulatory compliance. Contradiction between three types of attitudes that was considered as negative (42.9 per cent), neutral (33.4 per cent) and positive (23.7 per cent) attitudes contributed to the overall attitudes as neutral (CMS 2.73). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that it is appropriate to fully include victim in making decision towards regulatory compliance for the independent variables of Professional Status.

**Table 7.40: CMS, Frequency and Percentage Scores for Item 16**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q16 attitude	2.69 ± 0.30	188	45.5	121	29.3	104	25.2	413
Chairman	3.00 ± 0.31	6	66.7	0	0.0	3	33.3	9
Manager	2.64 ± 0.35	26	44.1	20	33.9	13	22.0	59
Technical	2.67 ± 0.32	48	47.1	29	28.4	25	24.5	102
Clerical	2.64 ± 0.35	54	49.5	28	25.7	27	24.8	109
Officer	2.76 ± 0.37	54	40.3	44	32.8	36	26.9	134

Source: Author

CMS (Table 7.40) shows that actors perceive themselves as having neutral attitudes towards the matter that victim without knowledge about regulation should be involved in regulatory compliance decision. Contradiction between three types of attitudes that was considered as negative (45.5 per cent), neutral (29.3 per cent) and positive (25.2 per cent) attitudes contributed to the overall attitudes as neutral (CMS 2.69). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim without knowledge about regulation should be involved in regulatory compliance decision for the independent variables of Professional Status.

**Table 7.41: CMS, Frequency and Percentage Scores for Item 17**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q17 attitude	2.69 ± 0.37	196	47.5	109	26.4	108	26.2	413
Chairman	2.89 ± 0.20	6	66.7	0	0.0	3	33.3	9
Manager	2.73 ± 0.34	26	44.1	18	30.5	15	25.4	59
Technical	2.67 ± 0.32	48	47.1	30	29.4	24	23.5	102
Clerical	2.63 ± 0.36	55	50.5	26	23.9	28	25.7	109
Officer	2.73 ± 0.24	61	45.5	35	26.1	38	28.4	134

Source: Author

CMS (Table 7.41) shows that actors perceive themselves as having neutral attitudes towards the matter that victim with experience but without knowledge should also be involved in regulatory compliance. Contradiction between three types of attitudes that was considered as negative (47.5 per cent), neutral (26.4 per cent) and positive (26.2 per cent) attitudes resulted the overall attitudes as neutral (CMS 2.69). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim with experience but without knowledge should also be involved in regulatory compliance for the independent variables of Professional Status.

**Table 7.42: CMS, Frequency and Percentage Scores for Item 23**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q23 attitude	2.54 ± 0.30	206	49.8	142	34.4	65	15.7	413
Chairman	2.78 ± 0.34	5	55.6	1	11.1	3	33.3	9
Manager	2.61 ± 0.27	25	42.4	23	38.9	11	18.6	59
Technical	2.46 ± 0.28	55	53.9	35	34.3	12	11.8	102
Clerical	2.47 ± 0.27	57	52.3	38	34.9	14	12.8	109
Officer	2.60 ± 0.26	64	47.8	45	33.6	25	18.7	134

Source: Author

CMS (Table 7.42) shows that actors perceive themselves as having low (negative) of acceptance that the behaviours of victim would not make regulatory compliance impractical. Only 15.7 per cent of actors have a high (positive) perception of acceptance, with 34.4 per cent undecided. Chairman was the only group had high attitude to accept that the behaviours of victim would not make regulatory compliance impractical with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that the behaviours of victim would not make regulatory compliance impractical for the independent variables of Professional Status.

**Table 7.43: CMS, Frequency and Percentage Scores for Item 24**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q24 attitude	2.76 ± 0.23	179	43.3	126	30.5	108	26.2	413
Chairman	2.78 ± 0.32	6	66.7	0	0.0	3	33.3	9
Manager	2.80 ± 0.24	23	38.9	19	32.2	17	28.8	59
Technical	2.79 ± 0.33	42	41.2	32	31.4	28	27.5	102
Clerical	2.70 ± 0.26	48	44.0	39	35.8	22	20.2	102
officer	2.78 ± 0.32	60	44.8	36	26.9	38	28.4	134

Source: Author

CMS (Table 7.43) shows that actors perceive themselves as having neutral attitudes towards the matter that victim would be able to move easily to adapt as a group in the process of regulatory compliance. Contradiction between three types of attitudes that was considered as negative (43.3 per cent), neutral (30.5 per cent) and positive (26.2 per cent) attitudes resulted the overall attitudes as neutral (CMS 2.76). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim would be able to move easily to adapt as a group in the process of regulatory compliance for the independent variables of Professional Status.

**Table 7.44: CMS, Frequency and Percentage Scores for Item 25**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q25 attitude	2.82 ± 0.25	152	36.8	160	38.7	101	24.4	413
Chairman	2.78 ± 0.34	5	55.6	2	22.2	2	22.2	9
Manager	2.81 ± 0.31	23	38.9	21	35.6	15	25.4	59
Technical	2.80 ± 0.32	32	31.4	49	48.0	21	20.6	102
Clerical	2.72 ± 0.30	45	41.3	41	37.6	23	21.1	109
Officer	2.92 ± 0.30	47	35.1	47	35.1	40	29.9	134

Source: Author

CMS (Table 7.44) shows that actors perceive themselves as having neutral attitudes towards the matter that the communication difficulties between victim and actors would not create confusion in regulatory compliance. Contradiction between three types of attitudes that was considered as negative (36.8 per cent), neutral (38.7 per cent) and positive (24.4 per cent) attitudes resulted the overall attitudes as neutral (CMS 2.82). Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that the communication difficulties between victim and actors would not create confusion in regulatory compliance for the independent variables of Professional Status.

**Influence of Item 22: Actors' Perceived Increases in the Amount of Responsibility If Regulatory Compliance Implemented in Malaysia Disaster Management Programme**

There were statistically (one way ANOVA) significant differences between the background characteristics of Professional Status  $F(4, 408) = 2.76, p < 0.05$  for the dependent variable Q22.

**Table 7.45: CMS, Frequency and Percentage Scores for Item 22**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
Q22 attitude	2.24 ± 0.31	265	64.2	103	24.9	45	10.9	413
Chairman	2.56 ± 0.32	6	66.7	0	0.0	3	33.3	9
Manager	2.08 ± 0.36	39	66.1	17	28.8	3	5.1	59
Technical	2.30 ± 0.26	65	63.7	21	20.6	16	16.7	102
Clerical	2.25 ± 0.31	71	65.1	25	22.9	13	11.9	109
Officer	2.25 ± 0.31	84	62.7	40	29.9	10	7.5	134

Source: Author

CMS (Table 7.45) shows that actors perceive themselves as having low (negative) attitudes about regulatory compliance would not increase actors' workloads. Only 10.9 per cent of actors have a high (positive) perception of their capability, with 24.9 per cent undecided. Chairman was the only group had high confidence that regulatory compliance would not increase actors' workloads with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was statistically difference between actors' perception of actors that



regulatory compliance would not increase actors' workloads for the independent variables of Professional Status.

**Influence of Item 26, 27 and 28: Actors' Perceived Suitability of the Current Malaysia Disaster Management Programme towards Regulatory Compliance**

Multivariate tests showed that there were no statistically significant relationship between the background characteristics of Professional Status  $\{W\lambda = 0.98, F(12, 1074) = 0.65, p > 0.05\}$  for the dependent variable Q26, Q27 and Q28. Univariate F-tests showed that there were no statistically significant relationship between the background characteristics of Professional Status for the dependent variable Q26,  $\{F(4, 408) = 0.52, p > 0.05\}$ , Q27,  $\{F(4, 408) = 0.79, p > 0.05\}$  and Q28,  $\{F(4, 408) = 0.49, p > 0.05\}$ .

**Table 7.46: CMS, Frequency and Percentage Scores for Item 26**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
	CMS	f	%	f	%	f	%	
Q26 attitude	2.37 ± 0.38	173	41.9	187	45.3	53	12.8	413
Chairman	2.44 ± 0.37	4	44.4	2	22.2	3	33.3	9
Manager	2.53 ± 0.36	21	35.6	28	47.5	10	16.9	59
Technical	2.31 ± 0.36	43	42.2	50	49.0	9	8.8	102
Clerical	2.29 ± 0.38	50	45.9	45	41.3	14	12.8	109
Officer	2.39 ± 0.32	55	41.0	62	46.3	17	12.7	134

Source: Author

CMS (Table 7.46) shows that actors perceive themselves as having low (negative) of acceptance that victim would be able to cope with emergency housings' regulation. Only 12.8 per cent of actors have a high (positive) perception of acceptance. Even though undecided with attitudes contributed 45.3 per cent; it was still not affected overall attitudes. Chairman was the only group had high attitude to accept that victim would be able to cope with emergency housings' regulation with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim would be able to cope with emergency housings' regulation for the independent variables of Professional Status.

**Table 7.47: CMS, Frequency and Percentage Scores for Item 27**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
	CMS	f	%	f	%	f	%	
Q27 attitude	2.37 ± 0.30	173	41.9	191	46.2	49	11.9	413
Chairman	2.56 ± 0.39	5	55.6	1	11.1	3	33.3	9
Manager	2.56 ± 0.29	20	33.9	31	52.5	8	13.6	59
Technical	2.26 ± 0.31	46	45.1	45	44.1	11	10.8	102
Clerical	2.35 ± 0.32	45	41.3	53	48.6	11	10.1	109
Officer	2.37 ± 0.30	57	42.5	61	45.5	16	11.9	134

Source: Author

CMS (Table 7.47) shows that actors perceive themselves as having low (negative) of acceptance that victim would be able to cope with all actors' behaviour in the process of regulatory compliance. Only 11.9 per cent of actors have a high (positive) perception of acceptance. Even though undecided with attitudes contributed 46.2 per cent; it was still not affected overall attitudes. Chairman was the only group had high attitude to accept that victim would be able to cope with all actors' behaviour in the process of regulatory compliance with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim would be able to cope with all actors' behaviour in the process of regulatory compliance for the independent variables of Professional Status.

**Table 7.48: CMS, Frequency and Percentage Scores for Item 28**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
Q28 attitude	2.33 ± 0.30	171	41.4	190	46.0	52	12.6	413
Chairman	2.56 ± 0.33	5	55.6	1	11.1	3	33.3	9
Manager	2.19 ± 0.34	27	45.8	28	47.5	4	6.8	59
Technical	2.33 ± 0.30	41	40.2	48	47.1	4	6.8	102
Clerical	2.29 ± 0.34	47	43.1	49	44.9	13	11.9	109
Officer	2.40 ± 0.27	51	38.1	64	47.8	19	14.2	134

Source: Author

CMS (Table 7.48) shows that actors perceive themselves as having low (negative) of acceptance that victim would be able to cope with the entire disaster environment in the process of regulatory compliance. Only 12.6 per cent of actors have a high (positive) perception of acceptance. Even though undecided with attitudes contributed 46.0 per cent; it was still not affected overall attitudes. Chairman was the only group had high attitude to accept that victim would be able to cope with the entire disaster environment in the process of regulatory compliance with 33.3 per cent positive contribution. Standard deviations show that there were few differences of perception regarding actors' general attitudes within groups of actors. There was no statistically difference between actors' perception of actors admitted that victim would be able to cope with the entire disaster environment in the process of regulatory compliance for the independent variables of Professional Status.

### c. Conative Component

#### Influence of Actors' Background Characteristics (independent variables) on the Conative Components of Attitudes (dependent variables) to Regulatory Compliance

The result of statistical tests (one way ANOVA) shows that there were significant differences in the perception of actors' general cognitive component for the independent variable of (1) Gender {F(1, 411) = 10.61,  $p < 0.05$ }, (2) Professional Status {F(4, 408) = 4.02,  $p < 0.05$ }, and (3) Attended In-service Courses {F(4, 408) = 4.25,  $p < 0.05$ }.

Tukey HSD in Post-hoc tests for general conative attitude shows that significance differences occur between pair group of (1) Chairman and Manager, (2) Chairman and Technical, (3) Chairman and Clerical, and (4) Chairman and Officer.

The result of statistical tests (one way ANOVA) shows that there was no significant differences in the perception of actors' general cognitive component for the independent variable of Number of years Working (1) Number of Years Working, F(4, 408) = 1.98,  $p > 0.05$ , (2) Level of Control, F(2, 410) = 2.56,  $p > 0.05$ , and (3) Availability of Trained Actors, F(1, 411) = 0.45,  $p > 0.05$ , (4) Actors to look after Regulatory Compliance F(1, 411) = 0.88,  $p > 0.05$ , (5) Department Related to the Scene of Emergency Housing F(1, 411) = 0.001,  $p > 0.05$ , and (6) Department has Specific Regulation towards Regulatory Compliance F(1, 411) = 2.26,  $p > 0.05$ .

**Table 7.49: CMS, Frequency and Percentage Scores of General Conative Component of Attitude to Regulatory Compliance of Actors' Background Characteristics**

	CMS	Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
General conative attitude	2.70 ± 0.29	145	35.1	156	37.9	112	27.0	413
<i>a. Gender</i>								
Male	2.71 ± 0.32	103	35.3	106	36.4	82	28.3	291
female	2.69 ± 0.35	42.2	34.6	51	41.4	29	23.9	122
<i>b. Number of Years Working</i>								
Under 5	2.80 ± 0.31	26	31.7	31	37.9	25	30.5	81
6 to 10	2.66 ± 0.34	39	36.8	40	37.5	27	25.7	106
11 to 15	2.72 ± 0.33	22	35.3	22	36.4	17	28.2	61
16 to 20	2.62 ± 0.31	31	38.8	29	35.7	21	25.5	81
More than 20	2.73 ± 0.30	27	32.5	35	41.5	22	25.9	84
<i>c. Professional Status</i>								
Chairman	2.97 ± 0.20	3	37.0	2	21.0	4	42.0	9
Manager	2.67 ± 0.24	21	36.2	21	36.3	16	27.5	59
Technical	2.67 ± 0.28	37	36.4	38	37.6	27	26.0	102
Clerical	2.68 ± 0.33	39	36.0	41	37.8	29	26.2	109
Officer	2.75 ± 0.29	44	32.8	54	40.0	36	27.2	134
<i>d. Level of Control</i>								
National	2.73 ± 0.35	19	36.0	20	37.2	14	26.7	54
State	2.75 ± 0.31	69	34.1	74	36.5	59	29.4	202
District	2.64 ± 0.33	57	36.1	63	39.9	38	23.9	157
<i>e. Attended In-service Courses</i>								
Yes	2.79 ± 0.31	53	31.4	67	39.6	49	28.9	169
No	2.65 ± 0.35	92	37.7	89	36.7	63	25.7	244
<i>f. Availability of Trained Actors</i>								
Yes	2.78 ± 0.31	56	31.9	67	38.4	51	29.6	174
No	2.65 ± 0.35	89	37.34	90	37.5	27	11.1	239
<i>g. Actors to look after Regulatory Compliance</i>								
Yes	2.77 ± 0.33	57	32.6	68	38.7	50.3	28.8	175
No	2.66 ± 0.33	88	36.9	89	37.3	61	25.7	238

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		CMS	f	%	f	%	f	
h. Department Related to the Scene of Emergency Housing								
Yes	2.80 ± 0.36	55	31.8	65	37.9	52	30.4	172
No	2.64 ± 0.30	90	37.5	91	37.9	59	24.6	142
i. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.68 ± 0.29	52	37.2	50	36.4	37	26.5	139
No	2.72 ± 0.37	93	34.1	106	38.6	75	27.3	274

Source: Author

CMS (Table 7.49) shows that actors perceive themselves as having perception of neutral (37.9 per cent) behavioural response of attitudes in regulatory compliance. The difference from neutral and negative were not very obvious because negative perception contributed 35.1 per cent from overall attitudes. 27.0 per cent of actors have a high (positive) perception of their behavioural response of attitudes. There was statistically difference between actors' perception of affective attitude for the independent variables (1) Gender, (2) Professional Status, and (3) Attended In-service Courses. CMS (Table 7.49) shows that actors perceive themselves as having perception of neutral (37.9 per cent) behavioural response of attitudes in regulatory compliance. The difference from neutral and negative were not very obvious because negative perception contributed 35.1 per cent from overall attitudes. 27.0 per cent of actors have a high (positive) perception of their behavioural response of attitudes. Standard deviations show that there were few differences of perception regarding actors' general conative component within groups of actors.

There was no statistically difference between actors' perception of cognitive attitudes for the independent variables of (1) Number of Years Working, (2) Level of Control, and (3) Availability of Trained Actors, (4) Actors to look after Regulatory Compliance, (5) Department Related to the Scene of Emergency Housing, and (6) Department has Specific Regulation towards Regulatory Compliance.

Influence of Actors' Background Characteristics (independent variables) on (1) Actors to Look After Regulatory Compliance, (2) Department Related to the Scene of Emergency Housing, and (3) Department has Specific Regulation towards Regulatory Compliance, on Q31 and Q33

Multivariate tests showed that there were no statistically significant main effects for the independent variables, (1) Actors to look after Regulatory Compliance { $W\lambda = 0.99$ ,  $F(2, 410) = 0.99$ ,  $p > 0.05$ }, (2) Department Related to the Scene of Emergency Housing { $W\lambda = 0.99$ ,  $F(2, 410) = 1.90$ ,  $p > 0.05$ } and (3) Department has Specific Regulation towards Regulatory Compliance { $W\lambda = 0.98$ ,  $F(4, 410) = 2.25$ ,  $p > 0.05$ } for the dependent variables Q31 and Q33.

**Table 7.50: CMS, Frequency, Percentage Scores for Q31**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		f	%	f	%	f	%	
	CMS							
a. Actors to look after Regulatory Compliance								
Yes	2.85 ± 0.32	40	22.9	109	62.3	26	14.9	175
No	2.81 ± 0.31	60	25.2	157	65.9	21	8.8	238
b. Department Related to the Scene of Emergency Housing								
Yes	2.92 ± 0.30	35	20.3	106	61.6	31	18.0	172
No	2.76 ± 0.36	65	26.9	160	66.4	16	6.6	241

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		CMS	f	%	f	%	f	
c: Department has Specific Regulation towards Regulatory Compliance								
Yes	2.78 ± 0.34	41	29.5	80	57.6	18	12.9	139
No	2.85 ± 0.33	59	21.5	186	67.9	29	10.6	274

Source: Author

CMS (Table 7.50) shows that actors for all groups of the three independent variables mentioned have generally a non-committal perception of actors were supportive of the idea of regulatory compliance. Statistical tests show that all three independent variable of (1) the Department that had Actors to look after Regulatory Compliance, (2) Department Related to the Scene of Emergency Housing, and (3) Department has Specific Regulation towards Regulatory Compliance had no significantly difference for the perception of actors were supportive of the idea of regulatory compliance.

**Table 7.51: CMS, Frequency, Percentage Scores for Q33**

		Grouping/Frequency/Percentage/n						
		Group 1		Group 2		Group 3		n
		CMS	f	%	f	%	f	
a. Actors to look after Regulatory Compliance								
Yes	2.51 ± 0.32	78	44.6	54	30.9	43	24.6	175
No	2.31 ± 0.38	121	50.8	81	34.0	36	15.1	238
b: Department Related to the Scene of Emergency Housing								
Yes	2.58 ± 0.39	74	43.0	51	29.7	47	27.3	172
No	2.26 ± 0.33	125	51.9	84	34.9	32	13.3	241
c. Department has Specific Regulation towards Regulatory Compliance								
Yes	2.43 ± 0.34	68	48.9	42	30.2	29	20.9	139
No	2.38 ± 0.31	131	47.8	93	33.9	50	18.2	274

Source: Author

CMS (Table 7.51) shows that actors for all groups of the three independent variables mentioned have generally a non-committal perception of actors will volunteer to attend relevant in-service training on regulatory compliance. Statistical tests show that all three independent variable of (1) the Department that had Actors to look after Regulatory Compliance, (2) Department Related to the Scene of Emergency Housing, and (3) Department has Specific Regulation towards Regulatory Compliance had no significantly difference for the perception actors will volunteer to attend relevant in-service training on regulatory compliance.

## Appendix 23: Translated Quotation of the Interviews

### 1.1

#### **Actors Perceived Knowledge of the Regulatory Compliance under the MNSC Directive 20**

Manager (under national level) had tried Direct Contact with the Disaster Victims

*“When I was posted to this department level, its regulatory compliance practice was already established. Ever since I arrived I have never received any circulars from the Prime Minister’s Department or other relevant authorities concerning regulatory compliance towards disaster victims under resilience difficulties”.*

Manager (under state level)

*“There were circulars from the Prime Minister’s Department when the department level was requested by the Prime Minister’s Department to the actors”.*

Technical Staff (under national level)

*“The problem is clerical staff are not interested in reading something they feel doesn't concern them or is not in their field of interest. But if they are interested, these documents could be found in department level files at the office”.*

Technical Staff (under national level)

*“The Prime Minister’s Department wants to introduce regulatory compliance but until now, as the actors in this department level had not been informed either verbally or in writing of what is expected of us in relation to the programme. I think it is about time someone from the Prime Minister’s Department came to the department level and explained to us what is going on”.*

Clerical Staff (under state level)

*“A few days ago the department level distributed questionnaires asking actors' opinions on the regulatory compliance and participation into disaster victims’ group. That's the first time I have read about it”.*

Clerical Staff (under state level)

*“I had briefly seen the documents before, but it was some time ago. I can't even remember what was in it now”.*

Clerical Staff (under national level)

*“I am not sure the department level has any circulars concerning the department level towards the MNSC Directive 20. It was never discussed before. Maybe because of I am not an emergency housing actor”.*

Manager (under state level)

*“Since being in this department level there are circulars on emergency housing, but it was meant for technical staff, so, I can't recall any”.*

#### 1.1.1

##### **Prime Minister’s Department intention towards Regulatory Compliance**

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*“After the Highland Tower tragedy in the 90s the department level decided after consultation with our technical staff to straighten the regulations in developing new development even in providing emergency housing. Main regulation to be applied are Land Conservation Act, Environmental Quality Act 1974, Local Government Act 1976, Road, Drainage and Building Act and Occupational Safety and Health Act will definitely become the main reference”.*

Technical Staff

*“What we did was to placed selected regulation according to the resources available because of on the scene of disaster everything has to be done fast and unfortunately we have to put the regulation aside. For example we have to put many disaster victims in one hall and it is cramped. We have to wait for quit sometime until other resources arrived”.*

Clerical Staff

*“The intension is good but the implementation for totally complied towards regulatory and guidelines is impossible”.*

**b. Department (under national level)**

Clerical Staff

*“I did discuss with the department level housing coordinator on the possibility of this intension. We were all agreed and tried our best to achieve the objective. At this stage, we just wanted to make sure other department did the same way we did”.*

Technical Staff

*“There are too many disaster victims in the disaster victims’ group; therefore we could not cope with the varied behaviours of disaster victims. On paper we can try to comply but when it comes to face the disaster victims, it will go to the other way”.*

Clerical Staff

*“We should think positive. I am confident that this is a good intention and can be done”.*

**c. Department (under state level)**

Manager

*“At this department level, we never faced a big disaster until Tsunami strikes. We are implementing regulatory compliance. So, there was no problem to implement in the future”.*

**d. Department (under district level)**

Manager

*“Under the MNSC Directive 20, rehabilitation and reconstruction is one of the main priorities. As enforcers, we are always ready to implement whatever circular or latest guidelines instructed by the federal”.*

**1.2**

**Actors’ Understanding of Regulatory Compliance in Malaysia**

Manager (Under national level)

*“Frankly speaking, I’m not sure if I wanted to refer to the term of regulatory compliance according to the MNSC requirement. As a trained officer of course we were familiar with this term as an organisation in any department and public agencies to ensure that personnel are aware of and take steps to comply with relevant laws and regulations”.*

Technical Staff (under national level)

*“As far as I’m concerned, the department should ensure and document that their activities are in compliance with all applicable federal, state, and local laws and regulations”.*

Technical Staff (under district level)

*“As an organisation we should ensure that all staff is appropriately credentialed for the functions they will be performing”.*

Officer (district level)

*“This department should be aware of, and comply with, any state or local requirements related to the provisions or regulations”.*

**1.3**

**Actors’ Understanding of Emergency Housing in Malaysia**

Technical Staff (under national level) that had tried direct contact with disaster victims

*“As far as I’m concerned, when the life of a person is at risk by a natural or non-ordinary situation, emergency housing is the fast build process when an emergency occurs”.*

Manager (under national level)

*“Any structure of tent, trailer, mobile home, or other structure used for human shelter that is designed to be transportable that can move from one place to one another and that is not attached to the ground, to another structure, or to any utility system on the same premises for more than 30 consecutive days”.*

Technical Staff (under district level)

*“If I’m not mistaken, emergency housing refers to a walled and roofed space or group of rooms located within a dwelling forming a single habitable unit with facilities used or intended to be used by a single family for living, sleeping, cooking, and eating”.*

Clerical Staff (under district level)

*“From the book here, emergency housing is a room or enclosed floor space used or intended to be used for living, sleeping, cooking or eating purposes, excluding bathrooms, laundries, furnace rooms, pantries, kitchenettes and utility rooms, foyers, or communicating corridors, stairways, closets, storage spaces, workshops, and hobby and recreation areas”.*

Technical Staff (under special body appointed by the government)

*“Any enclosed space wholly or partly used or intended to be used for living, sleeping, cooking, and eating”.*

### **1.3.1**

#### **Actors’ Concepts of Disaster Victims under the MNSC Directive 20**

Manager (under national level)

*“Disaster victims under resilience difficulties after disaster strike”.*

Manager (under state level)

*“There is currently a move to include disaster victims under physical distractions as part of disaster victims under resilience difficulties. But we are still awaiting the decision of the Prime Minister’s Department”.*

Clerical Staff (under national level)

*“Disaster victims with adaptation problems in some specific areas to recover but not necessarily can not stand on their own”.*

Technical Staff (special body appointed by the government)

*“Disaster victims got problems in resilience difficulties under the supervision of local authorities under the MNSC guidelines”.*

### **1.4**

#### **Department Level’s Discussions on Regulatory Compliance**

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Clerical Staff

*“When we planned to place disaster victims into disaster victims’ group, we and the manager invited other actors who agreed to have these disaster victims in their groups for discussions on how the programme should be implemented. Actors who were not involved in the MNSC Directive 20 did not take part in the discussions”.*

*“There were discussions between several of us with the manager and technical staff on the participation of disaster victims into our groups formally and informally. We were involved in the programme”.*

*“I never asked the manager about this programme”.*



**b. Department (under national level)**

Technical Staff

*"I had a policy of open-group. I invited actors to come over to my group whenever they feel like dropping in. When they come over (even not all of them) I try to tell them about the disaster victims in my group. I find this more effective because they can see the disaster victims for themselves if we make site visit, and when they see these disaster victims they tend to ask questions about them".*

Clerical Staff

*"I was told by technical staff that they intend to include these disaster victims into disaster victims' group when they are ready".*

*"It never occurs to me to discuss the topic with either the manager or technical staff".*

**c. Department (under state level)**

Manager

*"The discussions were done informally between me, technical staff and Clerical staff involved in the handling of these disaster victims included in disaster victims' group. There were no such discussions with other actors who were not involved in the programme of these disaster victims".*

Technical Staff

*"I had talks with several actors on its possibilities (regulatory compliance), but none of them were interested. After that I just keep quiet".*

Clerical Staff

*"We never discussed about it before. Maybe the department level does not have a plan to include disaster victims into my group".*

**d. Department (under district level)**

Manager

*"We had never discussed the possible direct contact with disaster victims under resilience difficulties into this department level. But we did discuss on few occasions about a regulatory compliance for disaster victims established recently in one disaster department level nearby. Our discussions were on how to provide things that is not in regulations or guidelines that sometimes requested by the disaster victims. This is the opposite of what we are discussing now".*

Officer

*"We don't have any circular about this programme. So we don't discuss it".*

Clerical Staff

*"What do we need to discuss it for?"*

**e. Department (special body appointed by the government)**

Technical Staff

*"I did discuss the possibility of our disaster victims being included in disaster victims' group with several actors. They told me if these disaster victims are included, they would still handle like they normally do as part of their daily job. They said that they should be accused of not doing their job properly if these disaster victims do not do well in their groups"*

*"Maybe the department levels' concerned about bureaucracy and handed over this matter to other relevant authorities. For me, I better keep it quite because what you did, didn't mean all were right. We were not interested to talk about this. "*

#### 1.4.1

### **Actors' Perceived Knowledge on Regulatory Compliance towards Disaster Victims under the MNSC Directive 20**

#### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*"During my informal discussions with actors in this department level, the majority of actors rarely used disaster victims as the topics of our discussions in their enquiries. Only a small minority of actors frequently discuss the welfare of disaster victims with me. They are either the department level technical staff or clerical staff".*

Technical Staff

*"There are actors who know my group of disaster victims and there are also those who don't. Those who regularly visit our group during their working time are aware of the existence of our disaster victims, and usually are sensitive towards these disaster victims' welfare. If anything happens to our disaster victims they will either help them or inform us about it. Actors who are not interested only know these disaster victims from a far".*

Clerical Staff

*"Not personally. But I did observe from a far. These disaster victims are difficult to control because of some of them were demanding".*

#### **b. Department (under national level)**

Clerical Staff

*"Formally I have not had a chance to actually get to know with these disaster victims. I had only seen their request in the department level report".*

*"Not all, only those who were placed in my group. Based on my experience, these disaster victims can adapt but they need a lot of attention".*

*"I regularly visit the disaster site, just to talk to the technical staff, and say hello to the group disaster victims. I don't know deeply their adaptation problems, but I do know that they are resilient difficulties compared to other disaster victims. Some of these disaster victims experienced some kind of behavioural problems as well".*

#### **c. Department (under state level)**

Clerical Staff

*"They don't know these disaster victims personally. Only at a distance, they don't understand the term regulatory compliance and therefore are not interested in these disaster victims' affairs".*

*"Maybe they know more about the disaster victims that are currently being included in disaster victims' group. But they are not concerned about other disaster victims outside their group".*

*"Sorry. I don't really know these disaster victims personally. I seldom visit the disaster site".*

*"I know these disaster victims quite well even though I had been posted to this department level for a month. This is because I am given the responsibilities to oversee their everyday resilience difficulties and welfare".*

#### **d. Department (under district level)**

Clerical Staff

*"We visited disaster site regularly until both side of actors and disaster victims satisfied with the works. Of course we know disaster victims very well especially their leaders in my group that I in charge".*

Technical Staff

*"Our contact with the disaster victims is very limited because we had to limit our relationship as actors and disaster victims. Not more than that. That was why our knowledge about them very little".*

**e. Department (special body appointed by the government)**

Manager

*"I am not sure about this because compliance is subjective and no instrument yet to measure. Till now the only way to know about it if there is any complaint about the project carried out".*

Technical Staff

*"They just see these disaster victims from the other side. They treat their duties as responsibilities and not charities or whatsoever".*

*"Most of the disaster victims' channel any demands through their leaders. So, most of us know their leaders better than other disaster victims".*

**1.5**

**Actors perceived rationale of the Prime Minister's Department Plan**

Technical Staff (under national staff)

*"Regulatory compliance if properly implemented could have a positive effect to disaster victims under resilience difficulties. Sadly as far as I can remember no one on behalf of the Prime Minister's Department has come to this department level to explain to all our actors the rationale and the importance of its implementation and so on. You can't expect actors to simply accept something that they don't understand or implement a new concept of compliance that they know very little about. Presently regulatory compliance is being planned by the top administration of the Prime Minister's Department, but we the actors in the department level have no clue to what it is all about or what is expected of us with reference to the programme".*

Manager (under state level)

*"Actors are not given much information on regulatory compliance by the relevant authorities. We, at the department level's administrators seldom discussed with actors about it".*

Technical Staff (under state level)

*"As far as I know, as long as actors are not involved in the regulatory compliance of disaster victims, and they don't have any relatives who are considered as disaster victims, they won't make any effort to find out about this regulatory compliance. Never mind regulatory compliance".*

Technical Staff (special body appointed by the government)

*"I don't think they (actors) know. When I was working in this department level, the concept of regulatory compliance never crossed my mind according to the MNSC Directive 20. What's more, regulatory compliance"?"*

Officer

*"There were no circulars sent to the department level as far as I know on this regulatory compliance programme. Therefore I can only assume that actors in this department level do not know much about the Prime Minister's Department reasons for wanting to introduce regulatory compliance".*

**Suggestion of Possible Reasons of Regulatory Compliance**

Clerical Staff (under national level) had tried Direct Contact with the Disaster Victims

*"As can be seen from the current situation in this department level, when we have separate groups for disaster victims and actors, there might appear differences between these disaster victims in many aspects. The caring feeling between these two sides in disaster victims' group doesn't seem to exist. They seem separated and distant. Actors tend to take it for granted when it is time to handle disaster victims whenever they transfer them in the department level responsibility".*

Clerical Staff (under national level)

*"They have to learn to live in disaster society eventually. So they might as well learn to mix with actors now".*

*"Maybe the Prime Minister's Department does not want to separate these disaster victims because in regulatory compliance they have to mix with their own kind plus involvement from the actors.*

*When included in disaster victims' group, their abilities to survive perhaps develop better because they are sharing and exchanging in formations".*

*"The Prime Minister's Department wanted these disaster victims to receive the same types of regulatory compliance as other disaster victims in other place, so that these disaster victims will feel that they are treated the same".*

Clerical Staff (under state level)

*"Disaster victims under resilience difficulties have very low confidence. By including them in disaster victims' group, maybe the Prime Minister's Department hope they would feel less inferior, and not being embarrassed about their resilience difficulties. It could be that they could learn much better when mixed with actors".*

Clerical Staff in Disaster Department Level (district)

*"To develop understanding in disaster victims' group the importance of rules and regulations in order to built a new better community".*

## **1.6**

### **Perceived Abilities of Actors towards Regulatory Compliance under the MNSC Directive 20**

#### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*"I think actors are able to comply with any regulations in order for them to deliver any housing to the disaster victims. Even though it is hard to comply totally, at least it can please the disaster victims. Therefore I don't have any hesitation in my colleagues"*

Technical Staff

*"It is our responsibilities to stick to the regulations in emergency housing. Sadly I had no training in emergency housing or experiences in handling these disaster victims prior to that. I had to learn from scratch on how to handle these disaster victims and try to comply with all regulations. I used my previous experience of having handled disaster victims to adapt myself to the new situation. I think I have been quite successful, but if we are trained in emergency housing, that's even better".*

Clerical Staff

*"I think I can, but it would be better if I had the proper training".*

*"I am not sure whether I can comply with all the regulations and guidelines. I have no patience to handle so many things in one time. I meant regulations requirement plus the pressure from disaster victims".*

*"I don't think I have the capability to comply totally with the regulations because of we just following orders given from two sides. One from our bosses and the other side is from the disaster victims. Nothing is perfect".*

#### **b. Department (under national level)**

Technical Staff

*"There are actors working in regulatory compliance who never had any training in emergency housing. With a right guidance they have managed to learn to handle these disaster victims and regulations quite well. If we have enough training in emergency housing, than we don't need many actors to look after our level of compliance. I guess any actors can comply with regulations related to emergency housing. The requirements are interest, commitment and a little help from experienced technical staff".*

*"Every actor can comply because that's what actors do. But how effective is the compliance? Handling disaster victims under the MNSC Directive 20 are not easy. I am not convinced that actors can comply totally because of their inexperience with these disaster victims and regulations at the same time. New housing development is a different thing".*

Clerical Staff

*"I think I can because I used to handle disaster victims with resilience difficulties before".*

*"I have never attended in-service training in emergency housing or remedial compliance. I also have no experience handling these disaster victims. No, I can't handle them".*

**c. Department (under state level)**

Technical Staff

*"There is only two officially trained technical staff in disaster management in this department level. The rest of us had never attended in-service training. If we can do it, why shouldn't other actors be able to it as well because it is part of our duties as government servant"?*

*"Actors in general do not have the capability to comply totally. Even though the adaptation and working processes are the same in their routine, they still have to present details and report in their group meeting and decision will be made together".*

Clerical Staff

*"I don't have the ability to produce robust decision by my own in emergency response".*

*"I think I can if given a little bit of training in emergency housing. Fortunately many of the actors' especially technical staff was on site. Even though had never attended in-service in emergency housing they were familiar with regulation and guidelines".*

**d. Department (under district level)**

Manager

*"If these regulations require our colleague to comply totally based on disaster site situation, I assumed my colleagues don't have the capability to comply and handle disaster victims. If it were the building control and regulations applied to other commercial housing development I think actors can use compliance knowledge to comply but not in emergency housing".*

Officer

*"They are not trained. But they might have the capabilities to comply and follow orders. In the case of resilience difficulties they are not able to overcome the pressure from the disaster victims or other outside parties because of their responsibilities is to the government".*

Clerical Staff

*"We had disaster victims in this department level who actors classified them with resilience difficulties. We tried to handle them as best we can but until now but they still cannot understand what regulations and guidelines is all about. All they know is their own needs that we can't make it happened because of it was out of the orders given by our superiors. But that demands came from communities that we can not simply put aside. It is out of our control".*

**e. Emergency Housing Department Level (special body appointed by the government)**

Manager

*"I am not sure about this because compliance is subjective and no instrument yet to measure. Till now the only way to know about it if there is any complaint about the project carried out".*

Clerical Staff

*"I was requested to manage this department level because the department short of staff. I agreed voluntarily to work here. When I first arrived I just didn't know how to start to comply with regulations, because my working experience had always been more with disaster victims but not guidelines or regulations. For days I had sleepless nights. With the manager's encouragement and the help of other technical staff, I slowly began to communicate with the disaster victims using psychology and translate it accordingly with the requirement in rules and regulations. Now I feel confident in my work. Thus if I can do it, I am sure other actors can do it too".*

Technical Staff

*“Actors are not trained in psychology communication. It will take some time for these actors to acquire mastery in the use of psychology”.*

### **Affective Component of Attitudes**

#### **2.1**

#### **Perceived Rights of Disaster Victims under the MNSC Directive 20 to Regulatory Compliance**

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Technical Staff

*“For some disaster victims, yes, for others, no, because of the types of responsibilities used in disaster victims’ group is not suitable for some of these disaster victims who are not ready for regulatory compliance. The capabilities of adaptation and most of them without formal education make it difficult for the majority of our disaster victims to cope with disaster adaptation”.*

Clerical Staff

*“It will help them learn about how to mix with the outside group”.*

*“Maybe it is suitable for certain regulation(s). Also for those disaster victims who actors feel are ready to be included”.*

*“If we gave them the rights to recover independently they would not get their full rights in regulatory compliance in MNSC Directive 20. In regulatory compliance not everybody may get what they are asking for. It is not easy to please everybody. We have to consider the benefit for both sides here”.*

##### **b. Department (under national level)**

Technical Staff

*“Our regulatory compliance philosophy clearly stated that 'Compliance is for all', and the MNSC Directive 20 states that 'Disaster victims with resilience difficulties should be given the opportunities to maximise their potential recovery'. So I don't see why they should be denied their rights to be included in disaster victims’ group if it could maximise their adaptation potential”.*

*“Only those considered as 'high-functioning' and can cope in disaster victims’ group, but not those disaster victims with severe adaptation resilience difficulties or/and have behavioural problems”.*

Clerical Staff

*“They have the rights to mix with disaster victims to prevent them from being isolated and demoralised”.*

*“I think they have the rights to become members of disaster victims’ group. They got their own leaders at least can represent them and voice their feeling”.*

##### **c. Department (under state level)**

Technical Staff

*“They are also human. If we can clarify their rights towards regulatory compliance they will feel appreciated and try to contribute to the benefit of their communities. Above all they can also help the government to deliver what the purpose of the development”.*

*“Disaster victims with moderate difficulties may have the rights to regulatory compliance because they are able to cope with disaster adaptation. For those with total lost, they have the rights to get extra attention especially their rights”.*

Clerical Staff

*“Some disaster victims are able to rise from the fall. Unfortunately most of them are vulnerable. Government is their only hope to help them back to their previous life before disaster. To make things worst, most of them do not have knowledge in emergency housing”.*

*“Not every disaster victims willing to be pampered. Some of them even though not capable to recover do not want any help. They wanted to do their own way legally or illegally. This type of people is not ready to be regulated”.*

**d. Department (under district level)**

Officer

*“They have the rights especially disaster victims under resilience difficulties because I heard for the time being only government capable to fulfill their needs”.*

*“It is not just the question of rights it is whether these disaster victims can cope with disaster adaptation. What's the point of granting them their rights to regulatory compliance when the objectives of assisting them are unreachable? They are in trouble and no where to turn to. Anyway it is the government responsibilities to look after them”.*

Clerical Staff

*“The victim who the actors in this department level regarded as having resilience difficulties should be assisted not only because of they got the rights but also they need to be on the right track to cope with any obstacles in order to get back on their own.*

**e. Department (special body appointed by the government)**

Manager

*“If there are ways that disaster victims under resilience difficulties can be helped, then they should be included in order for them to become part of other communities, and for humanitarian reasons”.*

Technical Staff

*“They have the rights but would only be suitable for non-religious demands. Regulatory compliance in non-religious demands would permit disaster victims to actively interact with actors and thus learn how to accommodate themselves to disaster society without hesitation”.*

**2.2**

**Perceived Benefit of Regulatory Compliance to Disaster Victims under the MNSC Directive 20**

**2.2.1**

**Knowledge Gained of Disaster Victims under the MNSC Directive 20**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Technical Staff

*“In terms of knowledge, some disaster victims included in disaster victims’ group showed improvement and some didn’t. For some disaster victims it is better to handle them fully according to MNSC Directive 20 and regulatory compliance until they are ready to be included in whatever level is appropriate”.*

Clerical Staff

*“Disaster victims might think that they are weaker than other disaster victims in the groups in terms of knowledge. In disaster victims’ group, they might cope with other members’ adaptation. Even if these disaster victims just followed what his/her colleagues do, eventually they would learn something”.*

*“There could be two side effects. If actors could provide these disaster victims with all attention they require then maybe their knowledge will improve. But if actors are too occupied and busy with other disaster victims and can only give minimal individual guidance to these disaster victims, then their learning process will decline”.*

Clerical Staff

**i. Psychology**

*“There were few disaster victims included in my group. For some, I felt, had improved, but not entire group. The adaptation environment might have been conducive to some but not to everybody”.*

ii. Also psychology

*“The disaster victims included in my group could not give attention to me because of distractions. I am embarrassed to admit it. I think their performance psychologically declined rather than improved”.*

**b. Department (under national level)**

Technical Staff

*“From my experience with disaster victims who regularly interact with actors during break times or discussion, their ability to communicate has improved. My assumption is that there will be an improvement in their knowledge about regulations, guidelines and policies”.*

*“Maybe the knowledge will be increased but for certain disaster victims only”.*

*“Actors don’t have time for disaster victims in their group”.*

Clerical Staff

*“They can always learn from actors who usually understand regulations more than them”.*

*“From my experience, they are very talkative if we discussed anything informally. They are active in discussions with actors and involvement in the communities. But, when they return to my disaster victims’ group, they are quiet and timid. Based on this, maybe, it is better in terms of knowledge to let their leaders to voice their needs based on the limited information they knew”.*

**c. Department (under state level)**

Technical Staff

*“Some disaster victims who have ability equal to if not better than the majority of actors. Their knowledge will surely increase”.*

*“If disaster victims have normal ability they will be able to catch up with actors, and their knowledge should be better in disaster victims’ group. But lately disaster victims sent to this department level are also suffering from other resilience difficulties, like mental and physical difficulties. Those who also suffer from mental difficulties, even though not very severe, will not achieve much in terms of knowledge if included in disaster victims’ group”.*

*“Their knowledge gained would be better if they stayed to the regulatory compliance. These disaster victims would have problems catching up in disaster victims’ group because actors will be working according to their normal pace. If the disaster victims cannot catch up or follow the pace, actors would not be able to help them”.*

Clerical Staff

*“For some disaster victims who are able to understand and interested to know and the answer is yes, for others no”.*

*“Their knowledge gained even worse because actors will always concentrate on handling the majority. Therefore they did not have time for slow learners”.*

**d. Department (under district level)**

Manager

*“My experience was only with some disaster victims under resilience difficulties but I think it would depend on the types of resilience difficulties the disaster victims have. For disaster victims with severe difficulties, it is very difficult to improve their knowledge in disaster victims’ group”.*

Technical Staff

*“Among themselves, they may feel they are lagging behind compared to other disaster victims in their communities. Thus they may be encouraged to try harder to catch up with each other. In disaster victims’ group they could simply give up because they could not keep up with other disaster victims’ progress. But if these disaster victims under resilience difficulties can be persuaded to do their best irrespective of other disaster victims’ achievements, and they can comfortably learn side*



*by side with other disaster victims and actors, then their knowledge could better improve in disaster victims' group compared to what they know before disaster strike".*

Officer

*"If the disaster victims were without formal education, they are slower in their understanding process compared to other disaster victims, but there will be an improvement if they wanted to".*

*"Based on my experience of handling disaster victims, I found that for knowledge sharing, they achieve better in my group compared to when they were in disaster victims' group without actors or a good leader. Maybe, because of I can give them the individual attention towards their resilience difficulties that other disaster victims in their communities can't give them while they were together".*

Clerical Staff

*"When mixed together with actors their thinking could be further developed compared to when they are mixing only with their own society. They can always learn from actors".*

*"Technical staff is better trained to handle these disaster victims particularly in building regulations. They know what is required because they have been specially trained for the task. We clerical staff will handle them like other disaster victims that might not be suitable. Maybe it is better practically if the victim with resilience difficulties in the department level is handled by specialist actors in emergency housing".*

#### **e. Department (special body appointed by the government)**

Technical Staff

*"This is a slow process but the disaster victims might do it if they want it to".*

*"Their knowledge would not progress rapidly because clerical staff would have difficulties in trying to make disaster victims understand the essence of regulations. Clerical staff has to go back to technical staff for certain information about buildings and regulations. Most of technical staff can make direct contact and explain the real scenario in emergency housing and what to provide the victim".*

### **2.2.2**

#### **Disaster Victims under the MNSC Directive 20 Social Development**

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Technical Staff

*"Socially, the engagement of disaster victims was a success. These disaster victims were able to make friends with actors, even though there are still those who would discriminate these disaster victims".*

Clerical Staff

*"Their social skills will develop because they will interact and socialise regularly with actors, thus ensuring that they behave in a socially acceptable manner".*

*"Disaster victims nowadays are very choosy who their friends are. If they are uncomfortable with actors in the group, they will just ignore them. If this happens, then disaster victims would learn how not to accept outside people rather than the opposite. If actors are accepting towards them, then their social skills will improve".*

##### **b. Department (under national level)**

Technical Staff

*"It will depend on the clerical staff in the group".*

Clerical Staff

*"If just among them, maybe there will not be much change in the social skills development. But, if included in disaster victims' group it will make great improvements. They will tend to imitate disaster peer behaviours that hopefully are those that are socially acceptable".*

**c. Department (under state level)**

Technical Staff

*“When disaster victims are exposed to actors, and these disaster victims are willing to help them in whatever way they can towards regulatory compliance, then disaster victims will not be conscious of their resilience difficulties and would be at ease interaction with disaster society”.*

Clerical Staff

*“If the intention of regulatory compliance is just to develop these disaster victims’ social skills, then yes, regulatory compliance will enhance it”.*

*“Hopefully actors will encourage these disaster victims to learn to accept the other disaster victims in the group. If not, then these disaster victims would remain rooted in their area”.*

**d. Department (under district level)**

Manager

*“The main way we can help our victim who we think has resilience difficulties is to improve his social skills. We can try to make him independent in handling himself, conscious of the groups around him, and know how to behave when interacting with other communities even outside disaster victims’ group”.*

Officer

*“It can be achieved if actors can persuade disaster victims to acts as ‘role models’ for other disaster victims under resilience difficulties”.*

Clerical Staff

*“The victim regarded as having mental resilience difficulties gets along superbly in communities. Socially, he is just like any other victim that needs to be part of communities”.*

*“Maybe it will improve their social skills. But I can't say for sure because the department level doesn't have cases where the disaster victims don't want to get involve in communities or disaster victims’ group”.*

**e. Department (special body appointed by the government)**

Technical Staff

*“They will be able to develop their social skills. Recently we had a meeting in disaster victims’ group explaining our plan of recoveries. They (disaster victims) seem to get along fine with actors even though they have lots of difficulty understanding each other especially when it is the part of rules and regulations”.*

**2.2.3**

**The Emotional Development of Disaster Victims under the MNSC Directive 20**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Technical Staff

*“Disaster victims would not feel isolated and segregated from disaster adaptation if they are able to mix with disaster victims for certain regulations in disaster victims’ group. But for disaster victims who are older and more mature, they do feel embarrassed when called resilience difficulties in victims’ group”.*

Clerical Staff

*“Including disaster victims in disaster victims’ group would make them feel accepted”.*

*“For disaster victims with severe emotional depressed from what they had lost, it was not easy to convince them that authorities will give their best to assist them to get back to their old life”. Also disaster victims felt uncomfortable if they are putting together with other races. Sometimes it is tenser when it is come to religious practice and believes”.*

**b. Department (under national level)**

Technical Staff

*“Disaster victims would feel embarrassed and isolated if included in disaster victims’ group”.*

*“We had tried to convince disaster victims that what happened was temporarily and government is here to help. Actors even elected some of the leaders in their group to make a report and raised their needs. They have the responsibilities to assist their disaster victims’ group members according to regulatory compliance. This hopefully will make our disaster victims feel independent and useful. So far they have done a good job in undertaking the roles expected of them.*

*“We also noticed that disaster victims showed tremendous respect to our colleagues even though these disaster victims realised that these actors are from the outsider and from different background. For example when our colleague made an inspection on the site and the construction progress is very slow and needs to put more labours. Fortunately, most of the disaster victims volunteers to help. In terms of emotional development I believed this is a good progress”.*

**c. Department (under state level)**

Technical Staff

*“Disaster victims will move in their own group and rise together after the disaster strike. The unity and sense of belonging between them would enhance the self confidence”.*

*“Emotionally they would be demoralised because other disaster victims catching up and adapt but they can’t”.*

Clerical Staff

*“Disaster victims would be victimised by other disaster victims because of they are not as strong as other disaster victims in terms of survival”.*

*“Some would be happy in disaster victims’ group and some who could not cope will suffer emotionally”.*

*“Aid or whatever helps the disaster victims get sometimes not enough and only those who can fight will get the helps first. Some of them have to wait. They will definitely get it but a bit late”.*

**d. Department (under district level)**

Manager

*“At the earlier stage of recovery disaster victims just needed accommodation, but after we provide them accommodation, they will request more than that and makes things complicated that caused emotionally depressed”.*

Clerical Staff

*“Emotionally disaster victims under resilience difficulties would have more confidence in themselves because of their abilities to mix and learn together with other disaster victims”.*

*“When other disaster victims can, and they can’t because of aged factors, they would be demoralised”.*

Officer

*“Maybe initially disaster victims under resilience difficulties would feel humble, embarrassed and at times isolated when included in disaster victims’ group. Once they feel they are being accepted by both other disaster victims and actors they will have confidence in themselves and will like disaster victims’ group better”.*

**2.3**

**Perceived Suitability of Regulations for Actors and Disaster Victims under the MNSC Directive 20**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*“Only the emphasis on the acquisition of basic amenities in earlier phase of recovery is suitable for our actors”.*

Technical Staff

*"The present regulations are suitable for our actors. All we need to do is some requirement modifications in order to make it accessible to these actors".*

Clerical Staff

i. psychology

*"After we received transcribed information from disaster site we will calculate and plan required accommodation and will be approved by the superior committee. This is the earlier stage, but if we are trying to comply with the demand from each and every victim at the later stage at site, it will be complicated".*

ii. Also psychology

*"Regulations that require equality of all disaster victims are not suitable for these disaster victims. Regulations that require the separation of gender are okay for these disaster victims. For example in equality of the disaster victims, all disaster victims will be treated as one community doesn't matter if they are Malays, Chinese or Indians. In reality they got different house of worship but has to provide them separate house of worship even for odd number of races. Waste of unutilised facilities sometime".*

Clerical Staff

*"The present regulatory programme demand equality of all disaster victims; that these actors might not be capable of to comply".*

*"Nowadays actors are required to learn too many regulations. As it is, they have problems coping with it, especially when it is time to treat disaster victims raised the issue of beliefs and worship that is out of the regulations in providing them amenities".*

#### **b. Department (under national level)**

Technical Staff

*"It is suitable for non-religious demands. But for religious demands like places of worship or way of living, it is a bit difficult for actors to cope with. These actors are the enforcers and not politicians. This situation makes it difficult to handle especially if involve disaster victims in decision making".*

Clerical Staff

*"It is too advanced for actors in this department level. From my discussions with other actors, these disaster victims' main priorities are adaptation to the present days and the way to start back their life. So, the present regulations most of it are still relevant unless it touches the issues of races and religions. Last but not least gender issues".*

#### **c. Department (under state level)**

Manager

*"Of course regulations are suitable for actors because it is all based on previous experience in the country".*

Technical staff

*"It is suitable, as a government servant we still have to obey with all other regulations not only in emergency housing that requires all government servants to serve the nation based on our oath made. We will follow orders from our superiors but not from the disaster victims especially when it is time to make decision for the good of all. Unfortunately according to humanitarians' actions we are always in dilemma".*

*"I prefer to get involved in the earlier planning stage because of less bureaucracy involved and disaster victims sometimes too demanding. At the end, the development of amenities always delayed because of the authorities has to fulfill demands from each individual in disaster victims' group".*

**d. Department (under district level)**

Officer

*“For actors, it is a bit difficult for them to make any decision because of they has to consider so many things for example culture, gender and religion. But for non-religious demand should be fine”.*

Clerical Staff

*“The current regulatory programme that involves religious or culture or gender is too difficult for our occasional actors in our department to cope with. Surely for actors, it is only suitable with modifications and some reconsideration”.*

**e. Department (special body appointed by the government)**

Technical Staff

*“We feel that the religious section of regulation or programme is too demanding for our colleagues, but we have no choice because we must subscribe to the directives of the Prime Minister’s Department to handle according to this guideline”.*

**2.4**

**Perceived Effect of Regulatory Compliance on Actors' Workload**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*“If actors were to handle disaster victims, there would not be much increase in their everyday workload. But the official requirement is that the regulatory compliance progress of disaster victims needs in accommodation under resilience difficulties, and this would definitely increase actors’ present workload. Actors also have to put in extra effort to control and handle disaster victims. They also have to give special attention to these disaster victims according to MNSC Directive 20 that might necessitate using different strategies to those usually employed”.*

Clerical Staff

*“My working workload increases because of I have to put extra attention to these disaster victims. I have to employ different strategies to make them understand just for one regulation that also requires the preparation of various working skill”.*

*It was a bit distracted because I had to keep my working pace slow just to accommodate demands from these disaster victims. Most of the time I have to explain what they are going to get and who is going to do that work”.*

*“Presently, actors are required to go to the site and make presentation to the disaster victims and get their feedback. Then go back and amend and present again. It takes time and effort”.*

**b. Department (under national level)**

Technical Staff

*“Workload will increase because of they have to fill in various detailing forms based on the everyday progress of their work plus disaster victims before come out with development plan”.*

Clerical Staff

*“These disaster victims under resilience difficulties need special attention from group of actors. For example, if they got 8 kids, demand for an extra rooms or space. But in the MNSC Directive 20 guidelines stated only 1 unit for a family, and then we have to back to the central and amend those things and definitely increase our workload”.*

**c. Department (under state level)**

Technical Staff

*“Actors handle as usual. When disaster victims are included in their groups, all these disaster victims’ needs would be sent to technical staff for transcribing. Actors only have to mark the transcripts and try to fulfill their needs. Then compare with guidelines in the MNSC Directive 20 or other guidelines provided specific to that project. There will only be a slight increase because that is our duties”.*

Clerical Staff

*"I would have to prepare lots of paperwork just to make sure everybody is satisfied".*

**d. Department (under district level)**

Manager

*"Actors' burdens would definitely increase. First, they would have to give extra attention to the regulatory compliance. Then, they have to listen to the disaster victims demands. This unconsciously would increase work in material preparation and administration".*

Officer

*"If the actors are expected to prepare all the materials and get involve in regulatory compliance, and of course there will be an increase in actors' workload. If actors are being supported by working assistant and enough working material preparation, then the increase would be acceptable".*

Clerical Staff

*"Actors have to give extra attention to the only victim with mentally depressions in the department level. Often with this victim, actors have to prepare adaptation materials that are totally different to those we give the other disaster victims in the group. If we really want to stick to the regulations just imagine how much time and effort it might take"*

**e. Department (special body appointed by the government)**

Technical Staff

*"As it is actors who are not only expected to handle regulations. They are also required to be involved in communities' activities, clerical work concerning the disaster victims in the group, and other appraisal activities at the district, state and sometimes at the national level. If disaster victims under resilience difficulties are also included in their groups, and the latest requirement is that every victim under resilience difficulties must have an individualised plan, then the actors would have a heart attack".*

**2.5**

**Perceived Effect of Regulatory Compliance on Disaster Victims**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*"If regulatory compliance is done at the beginning phase, disaster victims' resilience progress would not be affected, but I am not sure if regulatory compliance would affect later phase of disaster victims' recovery process".*

Clerical Staff

*"Disaster victims don't have any adaptation problems. Thus, it will not have any affect on their resilience progress".*

*"If actors can separate their working time appropriately, maybe it would not have an affect on the resilience progress of disaster victims".*

*"Regulatory compliance had an affect on disaster victims' resilience progress because I had to reallocate my working time in order to overcome the adaptation difficulties of disaster victims. If these disaster victims don't understand, I have to put in extra effort to make them understand and this affected my progress in finishing my duties. If I didn't finish the job, disaster victims would not be able to get what had already planned for them. Focus on regulatory compliance always the main task".*

**b. Department (under national level)**

Technical Staff

*"Normal work would proceed as usual with or under out disaster victims in the group".*

*“Maybe it will negatively affect disaster victims’ resilience progress slightly if other disaster victims have some kinds of behavioural problems. Their difficulties in the group could cause distractions to other victim”.*

Clerical Staff

*“At earlier phase, it will not have much affected because actors’ priorities at this stage are to ensure that disaster victims’ basic needs, information and survival kit”.*

**c. Department (under state level)**

Manager

*“Disaster victims’ resilience progress would not be negatively affected because actors would try to finish their task on time, and that's the problem. Sometimes it is too fast for disaster victims to follow”.*

Technical Staff

*“Disaster victims who act as readers in regulations practice would benefit in the recovery process because sharing information would enhance their knowledge of regulations and rights”.*

*“Actors would spend more time with disaster victims, thus depriving other disaster victims time”.*

Clerical Staff

*“Actors would have to make extra effort to convey to disaster victims things they can't see but essential to the process of recovery. This would definitely mean giving more attention to these disaster victims, thus denying other disaster victims the attention they need in resilience difficulties”.*

**d. Department (under district level)**

Clerical Staff

*“If these specific disaster victims have abnormal behaviour and like to disturb other disaster victims, then these disaster victims would keep their distance from them. If they don't have such awkward behaviours, maybe they could accept them in their group”.*

*“When disaster victims help other disaster victims under resilience difficulties, they would increase their understanding of the regulation matters or concepts. This would enhance resilience progress rather than diminishing it”.*

*“I am not sure because of regulations and guidelines exist for a good reason and from the previous experience. In the scene of disaster it is depends on the disaster victims behaviours whether they can adapt with other disaster victims or not and whether their demands are rational or not”.*

Officer

*“When disaster victims help other disaster victims under resilience difficulties, they increase their understanding of the regulation matter or concepts. This would enhance resilience progress rather than diminishing it”.*

*“The more time actors spend with disaster victims under resilience difficulties, the less time they have with other disaster victims”.*

**e. Department (Special body appointed by government)**

Technical Staff

*“This regulatory compliance concept will keep actors focus on their duties more towards providing accommodation that is already planned. At the same time they are responsible to hear from the disaster victims’ side too of what they need and what don't. Foremost, some of the actors may only cater specific disaster victims needs rather than overall disaster victims”.*

## 2.6

### **Perceived Effect of Regulatory Compliance on Department Levels' Performance**

#### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*"Regulatory compliance is not the priority here. We are trying to do our best to help the disaster victims. Regulatory compliance is just a guide of practice. Anyway our job is not just providing housing to the disaster victims but more than that".*

Clerical Staff

*"I don't think I would agree that regulatory compliance implementation will negatively effect our appraisal as government officers".*

#### **b. Department (under national level)**

Clerical Staff

*"Practically, they can never achieve the standard required in their training programme. They are government officers or enforcers that follow orders from their superior. In the scene of disaster you never know what will happen. What I am trying to say here is that department levels' performance might be good, but for the actors not really matters".*

#### **c. Department (under state level)**

Manager

*"In this department level, we combine training programme and application on site. When disasters strike especially Tsunami, it did negatively affect our compliance practice because of time constraints and everybody was panicked. However, in the previous years we tried to enhance our regulatory compliance because of we learnt from our mistakes. Therefore it depends on time constraint".*

Technical Staff

*"In emergency relief, we are bonded with the matter of time. Everything has to be done as quickly as possible. Some of the disaster victims judge us from the quality service we gave. Not easy to please everybody. It will affect our performance".*

*"In the past, there were actors who did quite well in training programme. The interest in regulatory compliance improves from time to time".*

*"If actors can give appropriate time to the matters of regulatory compliance, maybe it will not negatively affect the department levels' performance".*

Clerical Staff

*"Some of us will fail and there will also be those who will pass in training programme".*

*"Based on regulatory compliance, the majority of actors who took training programme failed it whether to attend or complete. Since the department level takes it seriously, there was an improvement in the department level performance".*

#### **d. Department (under district level)**

Manager

*"For the actors who got so many commitments, it will depend on them whether to comply with the regulations or not because most of them were familiar with regulatory compliance. But their attentions were distracted by external matters on the scene of disaster".*

Officer

*"Some actors got qualifications in disaster and emergency management. They were all performed well in the scene of disaster".*

*"There are two possibilities. It could increase the department level's performance if the actors agreed to comply with the appropriate regulations due to the fact that there are actors that familiar with emergency action and compliance, or may be not".*



*“They know what to do with the regulations but ignore most of it in the name of other responsibilities and commitments”.*

**e. Department (special body appointed by the government)**

Technical Staff

*“Regulatory compliance will definitely give us pressure and distract our concentration in disaster relief. But, that is what we do. I don’t see any problem there”.*

*“It will affect the department level performance because up till now most of our consideration is to complete and achieve our mission according to the time frame and working schedule”.*

**2.6.1**

**Suggestions on Alternative Methods of Evaluating Department Levels’ Performance Practicing Regulatory Compliance**

Technical Staff (under national level) had tried direct contact with the disaster victims

*“Evaluate the regulatory compliance progress of actors is not the whole picture of what we have done. If the government want to make valuation they should start with appointing an officer or put more staff specialise in emergency housing. Valuation can be started with calculating their performance. Some of us involve in this department on behalf of the department and not really understand what emergency housing is all about”.*

Clerical Staff (under national level)

*“No doubt actors would fail in their training programme because of other commitments. The department level just ignored these actors achievement while doing their training programme when calculating their appraisal in order to avoid it affecting the whole department”.*

Technical Staff (under state level)

*“The success of actors towards regulatory compliance should not be based solely on their regulatory compliances application in the line of duty. It should also take into account these actors achievements in other fields. For example, their involvement in representing the department level in sports and cultural activities at district, state and national level. Actors in this department level are heavily involved in these activities. This should also be referred to when assessing the regulatory compliance success of these actors, and credit is given to the department level for this achievement”.*

Technical Staff (special body appointed by the government)

*“Valuation should be done to the actors professionally involve in disaster management”.*

**2.7**

**Types of Regulations Favoured by Actors for Regulatory Compliance**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*“The most suitable would be regulations in present planning and building codes applied for all authorities in Malaysia in developing commercial housing scheme because of them already familiar with it. As for the regulations under the MNSC Directive 20 and the international standards, my colleagues do not have facilities to it”.*

Clerical Staff

*“I felt that regulations under the MNSC Directive 20 and the international standards are most suitable because those were suitable in disaster actions, unlike regulations in present planning and building codes. They are unlikely suitable because of emergency housing is not for permanent development”.*

**b. Department (under national level)**

Clerical Staff

*“I am preferred with the regulations in the present national planning and building codes because already familiar with it. They assumed that actors have required skills and technique to handle these regulations. As for regulations under the MNSC Directive 20 and the international standards are not my concerned because never work with that”.*

*“Based on ability to learn, I would prefer regulations under the MNSC Directive 20 followed by the international standards”.*

**c. Department (under state level)**

Technical Staff

*“Maybe regulations in the present national planning and building codes are the most suitable because I have required skills and technique to handle these regulations, followed by regulations under the MNSC Directive 20 because of government knows better about disaster situations. Third, the international standards because of the guidelines have been practicing outside Malaysia”.*

Clerical Staff

*“Guidelines in the international standards are the most suitable because of the guidelines are suitable for everybody without discrimination. The most unsuitable would be regulations in the present national planning and building codes because of not practical in the disaster scene”.*

*“For me, regulations under the MNSC Directive 20 are more suitable practically based on local experiences compared to guidelines in the international standards. As for regulations in the present national planning and building codes, they are not practical. That's just my opinion anyway”.*

**d. Department (under district level)**

Manager

*“Based on current department level facilities, the most suitable would be regulations in the present national planning and building codes”.*

Officer

*“All three types are suitable to the department level due to availability of appropriate facilities”.*

Clerical Staff

*“I would prefer regulations in the present national planning and building codes because of availability of the facilities. As for regulations under the MNSC Directive 20 and the international standards, I don't have the knowledge to handle them. But I don't think there is a problem if we get appropriate training”.*

*“Currently there are regulations under the MNSC Directive 20 that had succeeded in this regulatory compliance and project delivered with fewer complaints. I haven't heard of the international standards, but there are efforts towards the implementations. As for regulations in the present national planning and building codes it will be a great achievement if it is accomplished towards regulatory compliance”.*

**e. Department (special body appointed by the government)**

Manager

*“I'm in this line for quite sometime and my main reference is planning and building codes. But there is not a problem for me to follow any instruction from the above”.*

Technical Staff

*“We have proof that regulations under the MNSC Directive 20 could be achieved. No major complaints from the disaster victims”.*

Clerical Staff

*“All three types are unsuitable because each type has its own problems”.*

*“Sorry, I am not with any of the option given because of everything depends on availability of the resources at that time”.*

## **Conative Component of Attitude**

### **3.1**

#### **Perceived Actors Support for Regulatory Compliance Implementation**

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*“Actors first reaction would give excuses to reject the intention of regulatory compliance implementation. Actors should be given all the information associated with the programme if the Prime Minister’s Department insisted and persevered with the plan. However, they can be persuaded to accept it”.*

Technical Staff

*“Actors support would depend on department levels’ managers. If the manager continuously stresses the importance of the MNSC Directive 20 for the department level in their meetings, they might be persuaded to accept it. But, if the manager rarely mentions it in his/her meetings, then regulatory compliance would be seen as another unwelcome addition to their working responsibilities”.*

Clerical Staff

i. psychology

*“The current conditions in this department level do not guarantee for this MNSC Directive 20 implementation. Neither actors nor disaster victims will benefit from it because it is going to takes time in the construction process”.*

ii. Medical

*“For earlier phase that is the planning stage, it should be okay. But for later phase of recovery at site, I am a bit reluctant because of the pressure from surroundings”.*

Clerical Staff

*“I will support it if other actors support the programme. If I am alone I am not so sure. If there are others willing to support, we can sort of help each other morally and mentally”*

*“I guess I will support the programme for humanitarian reasons”.*

##### **b. Department (under national level)**

Technical Staff

*“Regulatory compliance would be too demanding on actors to cope with because of the pressure from the media, disaster victims and even from my department”.*

*“Not all actors will support the regulatory compliance with the MNSC Directive 20, but I think they will support the programme if they have a better understanding of it”.*

*“I think actors will give their support because so far they have been supportive towards all our activities regarding disaster victims”.*

Clerical Staff

*“It is difficult for me to support the programmes’ implementation because the majority of the department levels’ actors and I have not attended any training courses in the handling of disaster victims under this programme”.*

##### **c. Department (under state level)**

Manager

*“I don’t think actors will support the programmes’ implementation because they are convenience with the present progress but it is not easy to grant all disaster victims demands. Actors not provided with enough information about this programme and I don’t think this is easy for them”.*

Technical Staff

*"Only some actors will support regulatory compliance because they don't have any emergency housing background. Like myself, when I was involved in disaster site, I didn't know anything about regulatory compliance. It was difficult of having these disaster victims in my group and then to follow the regulations accordingly".*

*"I don't have any problem with that because of this is our duties and do our best to serve the public".*

Clerical Staff

*"I will not support the programme because of actors are not trained in emergency housing. These disaster victims will suffer emotionally because the actors do not have the knowledge to handle them".*

*"This is a new thing. I have to know more about it before I can make up my mind to support or not to support its implementation".*

#### **d. Department (district)**

Manager

*"Actors will not support it at present condition because it demands too much of actors' capabilities. There are problems with disaster victims that have yet to be overcome, and now with this programme. It will make our job more challenging".*

Officer

*"Based on the department level's of current conditions, maybe at the earlier stage actors will support this MNSC Directive 20 for these disaster victims under resilience difficulties because of most of the work can be monitored. As for later phase of recovery, I don't think they will support it because their work is geared toward accommodate facilities with a lot of pressure from surroundings".*

Clerical Staff

*"We had disaster victims with diverse types of difficulties in our group that all the actors involved in handling them faced a lot of trouble. Maybe if they were handled by actors trained in emergency housing they could do better".*

*"I will support it because if we don't try, we won't know".*

#### **e. Department (special body appointed by the government)**

Technical Staff

*"They will not support regulatory compliance because they know that handling these disaster victims would be problematic. Actors would still have to prepare about the risk of dragging their time frame".*

*"Very few will support regulatory compliance because of their inability to communicate with disaster victims, and also it will increase the actors' burden".*

### **3.2**

#### **Perceived Ability of Regulatory Compliance on Promoting a 'Caring Feeling' and Acceptance of Disaster Victims under the MNSC Directive 20 by the Actors**

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Clerical Staff

*"I do agree with this type of approach that may create more caring and accepting of disaster victims in disaster victims' group".*

*"The disaster victims have very poor knowledge in regulatory compliance and the MNSC Directive 20. In training programme we are prepared for this. That is why in some cases we had to exclude these disaster victims from our action group".*

Technical Staff

*"I'm afraid at the beginning stage disaster victims are not welcome in any decision making process. However after the relationship developed actors might understand the needs between two parties".*

**b. Department (under national level)**

Technical Staff

*"There will always be a section of actors who will use practical approach to describe disaster victims included in disaster victims' group. They will only select the disaster victims they preferred to. But if actors play their part in preventing this from happening, they will eventually accept these disaster victims".*

*"Including disaster victims will make actors more caring. In the past during any department level activities, actors would always give disaster victims first priority".*

Clerical Staff

*"Including disaster victims will help facilitate the creation of a 'caring society ', but I am worried a section of our actors would discriminate these disaster victims in their disaster victims' group because disaster victims under resilience difficulties were too demanding".*

*"Mixing these two groups in the same group would help them understand each other more, thus become more caring towards each other's".*

*"Even though these disaster victims and actors are not adaptation in the same group, we can still encourage the 'caring feeling' among disaster victims. The department level frequently arranged activities for our disaster victims and in all these activities we involved actors as well. From my everyday observation, actors can get along very well with our disaster victims".*

*"Depends on how many disaster victims included in disaster victims' group at one time. If there are only two or three actors in a group of 240 disaster victims, the effect will be negligible".*

*"We will try our best to handle these disaster victims and comply with MNSC Directive 20, but I'm still thinking that it is not good enough for them to please their needs".*

**c. Department (under state level)**

Manager

*"It will make actors more caring because from what I can see in the department level and at the shelter, actors are always helpful to the disaster victims. But there are also actors who are mischievous that ignored disaster victims. Thankfully there are not many of these types of actors in the department level".*

Technical Staff

*"From my observations, actors are very concerned about disaster victims in this department level. For example, actors would take turns to hear disaster victims request so that disaster victims might know their rights and response to it".*

Clerical Staff

*"Some will accept these disaster victims, but there are also those who won't. Those who are not accepting would ignore these disaster victims, thus making them more isolated from the rest of the group".*

*"I don't think there will be a negative attitude towards disaster victims by actors. They seem to have accepted the disaster victims with moderate difficulties presently in disaster victims' group".*

**d. Department (under district level)**

Manager

*"There would be mixed acceptance by actors towards disaster victims under resilience difficulties. There would be one section of actors who could accept disaster victims under resilience difficulties, make friends with them, help them, and realise how lucky they are. But there is also a section of actors who would discriminate and ignore them".*

**e. Department (special body appointed by the government)**

Technical Staff

*“Of course government will propose the good things to the public. This concept of regulatory compliance is actually to protect disaster victims’ rights and start back what they had lost. I support this caring feeling and acceptance between actors and disaster victims”.*

Clerical Staff

*“I don’t know. I’m worried that disaster victims would be more isolated and segregated because of their inability to express their feeling and their thoughts to actors”.*

**3.3**

**Perceived Willingness of Actors to Attend In-Service Training in Emergency Housing**

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Manager

*“As far as I know actors are only interested to attend in-service courses in emergency housing if they have disaster victims under resilience difficulties. They are not interested if their disaster victims are perfectly normal and competence. To them handling these disaster victims is a waste of time”.*

Technical Staff

*“Actors are not interested in the regulatory compliance”.*

Clerical Staff

**i. Psychology**

*“I don’t think I will go because firstly I don’t have the patience to handle these disaster victims. Secondly, the main emphasis in training courses are theories that tend to make things looks easy. When you try practising it yourself you will realise that it is difficult to implement what has been handled. I don’t want to get frustrated in my work”.*

**ii. Medical**

*“If given the chance I want to go because we can learn latest updates in compliance and regulations. Anyway we will often meet disaster victims under resilience difficulties and it is different”.*

Clerical Staff

*“I don’t think so because it won’t be long before I retire, thus not interested”.*

*“I will go if been directed by my superior. But, I won’t volunteer to go. What if I could not deliver what is expected from attending the course? I should not have gone in the first place because of personally I just don’t have what it takes to handle these disaster victims”.*

**b. Department (under national level)**

Technical Staff

*“If actors are given information on regulatory compliance beforehand, they might be interested. What makes actors reluctant to attend emergency housing courses is that they are unsure what they are getting themselves into. If they have a rough idea of what this programme is about, maybe they can be persuaded to attend courses in emergency housing”.*

Clerical Staff

*“I don’t think I will because of my work commitment. Even now I sometimes have to miss working with disaster victims because I have to attend meetings organised by either the District and/or the state”.*

*“I will go so as to increase the range of my working abilities to include disaster victims under resilience difficulties”.*

**c. Department (under state level)**

Manager

*“Some actors will agree to accept disaster victims under the MNSC Directive 20 in their group if they are given relevant training”.*

Clerical Staff

*"I am hesitant because, one, the course is too long. Two, the centre of training is too far from home, and three, family commitments".*

*"I will go because I can learn something different. Previously I learned how to handle disaster victims, and this time I am adaptation how to handle disaster victims".*

**d. Department (under district level)**

Manager

*"In the past, actors in this department level were not receptive towards in-service courses in emergency housing. Maybe, they are not interested or they have family commitments".*

Officer

*"There are actors who would be interested to attend such courses. First thing to do is give them some information on what regulatory is all about. For example when I discussed about this MNSC Directive 20 there were many actors who came over to see what this regulatory compliance is all about, and they asked a lot of questions. That shows that clerical staff is interested in the regulatory compliance too".*

*"Some actors like to handle certain disaster victims only. Very few of them like to handle disaster victims without formal education, not from their group and under resilience difficulties".*

*"They might be willing but it should only be a short term course. Actors have family commitments that also require their attention".*

Clerical Staff

*"When you have been working for as long as I have and got so used to the current types of works, I guess I have lost interest in changing my ways".*

*"I will volunteer because in disaster victims' group there are also disaster victims with adaptation problems who are very low in income group and fighting spirit. Maybe I can learn the techniques on how to handle them more efficiently".*

**e. Department (special body appointed by the government)**

Clerical Staff

*"Not a problem for me because of that is the way to get more information about this programme".*

Technical Staff

*"I volunteered to handle in this department level because I have relatives involve in the MNSC Directive 20. Hopefully by working in this department level, I could help them".*

*"Maybe actors who have been handling disaster victims for many years might not be interested in attending courses in emergency housing, just to escape from the monotonous routine of disaster works. But I think the number is very small. Only those who would like to widen their working skills will attend in-service training".*

**3.4**

**Actor Perceptions of the Conditions to Accept Regulatory Compliance  
Directed by the Prime Minister's Department**

Manager (under national level) had tried Direct Contact with the Disaster Victims

*"There are actors who will accept regulatory compliance into regulatory process, like those who were involved in other government programmes. All I did was to ask them to give this programme a chance, and they agreed to try it. This department only included disaster victims into disaster victims' group when the actors agreed to it. If the actors refuse, we don't force them".*

Clerical Staff (under national level)

*"If the Prime Minister's Department likes it, we have to do it".*

Clerical Staff (under district level)

*“In this department level, actors accept disaster victims under resilience difficulties because of they are in trouble”.*

Technical Staff (special body appointed by the government)

*“I don’t think actors will accept disaster victims into the most important part that is the decision making, but if directed by the Prime Minister’s Department, we have no choice but to accept it”.*

### **Disaster victims under the MNSC Directive 20 have Certain Abilities**

#### **a. Have Acquired Pre-Requisite Skills**

Clerical Staff (under national level)

*“At least disaster victims must be able to handle themselves and become efficient in self-help skills. Not forget to handle psychological matters”.*

Technical Staff (under state level)

*“Prepare these disaster victims with basic knowledge such as medical response and survival skill so that disaster victims are confident of their adaptation abilities”.*

#### **b. Have No Behavioural Problems**

Clerical Staff (under national level) had tried direct contact with disaster victims

*“If the disaster victims do not have serious behavioural problems and have acquired skills in self-management, then they are very similar to other people around them. This would make them acceptable to both other disaster victims and actors”.*

Clerical Staff (under district level)

*“Actors are willing to accept disaster victims into their group because they did not have behavioural problems. Thus, actors did not complain about having him”.*

#### **c. Would Not Accept Disaster Victims under the MNSC Directive 20 Even Without Behavioural Problems**

Clerical Staff (under national level)

*“I would not accept this even if these disaster victims don’t have behavioural problems. I did try handling these disaster victims in my group for the last two years. They do not have abnormal behaviours, but I just cannot handle them”.*

Clerical Staff (under national level)

*“Even under out behavioural problems it is difficult to accept these disaster victims because they don’t know regulations”.*

### **For Non-Religious Regulations Only**

Technical Staff (under national level)

*“There are actors who visit our group regularly, who would accept our disaster victims into their groups if these disaster victims can self-handle, especially groups involving non-religious regulations. Actors not only interested in religious matter but also races and cultures that is very sensitive”.*

Technical Staff (special body appointed by the government)

*“Regulatory compliance should initially involve non-religious regulations only, because have different needs and interests”.*

## **3.5**

### **Barriers towards the Implementation of Regulatory Compliance**

#### **Lack, of Information**

Clerical Staff (under national level) had tried Direct Contact with the Disaster Victims

*“It is important for every department to have a deep understanding of the regulatory compliance to serve the public. When they are able to associate the importance of both the regulatory compliance and disaster victims needs, only then will they accept the nature of regulations and disaster victims”.*



## **Department Levels' System**

### **a. Internal**

Manager (under national level) had tried Direct Contact with the Disaster Victims

*"We have to consider orders that might involve political interest or different ethnic demand. After all consideration noted then we will proceed with actions. This is all takes time".*

### **b. International**

Manager (under national level)

*"We tried our best to provide disaster victims with every resource available in the country. Unfortunately we can't satisfy everybody especially from international committees".*

## **Actors' Workloads**

### **a. Capacity of Emergency Housing**

Clerical Staff (under state level)

*"There are differences in emergency housing on site and disaster victims' group. There are hundreds or maybe thousands disaster victims in a disaster victims' group and only few professionals or practitioners to handle them. Thus actors cannot give these disaster victims individual attention".*

### **b. Responsibilities not related to Working**

Clerical Staff (under national level)

*"In the scene of disaster actors are currently given too many responsibilities unrelated to their works that makes it difficult to fulfill regulations totally".*

## **Actors' Skill**

### **a. Actors not trained towards the MNSC Directive 20**

Technical Staff (under national level)

*"After actors received their training from private or government, we will be sent to the appropriate department/division. (Most of us) were never told about the regulatory compliance is a mandatory. Sad but true, I don't know anything about this MNSC Directive 20. Everything has to be done fast. We will provide the plan but most of the work handed over to the contractors".*

### **b. Actors with Specific Skills Only**

Manager (under district level)

*"Most of us know how to manage the scene of disaster but the rest we leave it to the professionals".*

## **Appraisal Pressure**

Clerical Staff (under national level)

*"The demand by compliance authorities and achievement in training programme makes actors unwilling to prioritise the disaster victims or their responsibilities towards the MNSC Directive 20".*

Manager (under national level) had tried Direct Contact with the Disaster Victims

*"When the managers (District) receive information from actors regarding issues in regulatory compliance, their immediate response is to send these disaster victims matters to the related department. These managers seem reluctant to maintain these disaster victims' matters in their own department level. They are afraid that these disaster victims will affect their department level's overall percentage of appraisal".*

## **Acceptance of Disaster Victims under the MNSC Directive 20**

### **a. Managers' Negative Perception about the Importance of Regulatory Compliance to Disaster Victims under the MNSC Directive 20**

Manager (special body appointed by the government)

*"There are managers who leave the compliance matters to other regulatory compliance coordinator. They let the coordinator to overcome the issues pertaining without giving proper solution. Sadly, some of these managers had attended seminars on the regulatory compliance and serve the disaster victims under resilience difficulties".*

**b. Unwillingness of Actors to accept Disaster Victims under the MNSC Directive 20 into their Groups.**

Technical Staff (under national level)

*“What saddens me the most was that actors’ perceived ignorance whenever they encounter disaster victims with adaptation problems in their group, instead of trying to overcome these disaster victims’ difficulties in the context of emergency housing. They assumed that their involvements in the development work will just slower the process”.*

Clerical Staff (under state level)

*“Most of them still under trauma and can’t think rationally. They will disturb the process of making any decisions”.*

**c. Negative Acceptance of Disaster Victims under the MNSC Directive 20 by Disaster Communities**

Technical Staff (special body appointed by the government)

*“There was an incident when one group of victim and other disaster victims quarreled with each other. Miscommunication between these two groups was due to the fact that they were actually having negative perception among them”.*

**d. Negative Perception of Disaster Victims under the MNSC Directive 20 by Relatives of Disaster Victims.**

Clerical Staff (under national level)

*“When these disaster victims mutually involved in disaster victims’ group, their relatives were uneasy about the presence of actors because of they thought the actors will just doing their job without considering what the disaster victims really needs. Consequently, there was not much cooperation between disaster victims’ relatives and actors”.*

Manager (under state level)

*“In some cases, the disaster victims’ relatives thought that the actors will take more than appropriate time to provide accommodations. Consequently, the disaster victims will stay much longer in their house”.*

Technical Staff (under state level)

*“Maybe relatives of disaster victims do not want the disaster victims to be included in disaster victims’ group. There are three reasons for this. One, in disaster victims’ group there are too many disaster victims. Secondly, they might not be able to meet the disaster victims as often as they are able to meet. Thirdly, they are worry of some of these actors would discriminate their disaster victims”.*

**e. Unwillingness of Actors to relinquish their Working Responsibilities**

Technical Staff (special body appointed by the government)

*“Attitudes of the technical staff should be changed. These actors are usually very protective of their working territories. For technical staff, handling disaster victims under resilience difficulties is their duties. Both clerical staff and technical staff should be able to accept encroachment into each other’s working territories. There should not be any barriers in terms of responsibilities towards both disaster victims and disaster victims’ relatives. Everybody must play their part”.*

**Resourcing**

**a. Lack of Regulatory Compliance Facilities and/or Materials under the MNSC Directive 20**

Manager (under state level)

*“We still have an insufficient number of site office facilities and medical response machines to accommodate all our works. And we’re still awaiting our supply from the department and emergency funds”.*

Clerical Staff (district)

*“Sometimes it’s hard to received assistance from national level especially latest equipment because of we have to go to the lab or equipment not available”.*

Technical Staff (under national level)

*“There are no problems with working materials for disaster victims because I can always borrow anything or buy my own from volunteers or disaster staff”.*

Technical Staff (special body appointed by the government)

*“Most of the latest equipment like mobile toilet and shower not in this country. So it is going to take time to arrive after made orders”.*

#### **b. Lack of Emergency Housing**

Technical Staff (under national level)

*“Immediate recovery demands acquire immediate accommodations to set up. Sometimes we have to put more disaster victims in one place until proper emergency housing built up”.*

#### **c. Inadequate Number or Lack of Technical Staff in the Department Level**

Technical Staff (under state level)

*“As a government officer we always have to go for training and other functions. For some cases actors had to do covering job in case of the specific actors on leave”.*

Manager (district)

*“The district level doesn’t have any professionals to consult if regulatory compliance is implemented. We have to wait for state or national assistance”.*

### **Abilities of Disaster Victims under the MNSC Directive 20**

#### **a. Disaster Victims’ Behaviours**

Technical Staff (under national level)

*“Under great trauma aftermath, disaster victims were desperate for help but they try to do everything by their own way like rebuilt accommodation on old destructive site that is very danger and set up their own group declining help from authorities”.*

Clerical Staff (under district level)

*“Worst scenario case was that they rejected government offers and assume that authorities were not helpful”.*

#### **b. Disaster Victims without Formal Education**

Clerical Staff (under national level)

*“Disaster victims were not formally educated or skeptical of what the government will provide, thus they will try to get their own channel of helps”.*

### **Negative Acceptance of Regulatory Compliance by Disaster Victims under the MNSC Directive 20**

Clerical Staff (under national level)

*“Some of the disaster victims considered about their group of interest and really hesitant if the authorities gave them facilities not according to their needs”.*

Technical Staff (under state level)

*“I once asked disaster victims whether they would like to involve in disaster victims’ group. They were all said no. Their reasoned was that they were happy where they were and let the actors do their job”.*

## **3.6**

### **Changes Suggested by Actors Prior to Regulatory Compliance Implementation in Disaster Department Levels**

#### **Training in Emergency Housing**

##### **a. Actors given In-service Training in Emergency Housing**

Technical Staff (under national level)

*“If regulatory compliance is to be implemented in this department, this department in association with the Prime Minister’s Department should organise in-house training for actors on what is the best way to handle disaster victims under resilience difficulties included in their groups”.*

*“The other alternative is the establishment of emergency housing training centres by the state compliance department in the various district compliance offices, that actors involved in MNSC Directive 20 could be involved to handle disaster victims group under resilience difficulties. This training should be continuous until they are confident to cope with disaster victims under resilience difficulties included in disaster victims’ group. Setting up training centre at district level would also ensure that actors can travel to and from their home”.*

**b. Disaster Victims under the MNSC Directive 20 and Regulatory Compliance to be included in the Programme at Actors Training Sessions**

Manager (under national level) had tried Direct Contact with the Disaster Victims

*“Disaster victims under resilience difficulties in the MNSC Directive 20 should get involve in this training and are made part of actors training session so that actors are well prepared mentally”.*

Officer (under national level)

*“These are the entire subject we took as part of the training programme and I hope everybody who is interested in recovery assistance should take too. 1) First Aid. 2) International Humanitarian Law (IHL). 3) Psychological Support Programme (PSP). 3) Simulation 4) Integrated Community Based Risk Reduction Risk (ICBRR). 4) Rapid Deployment Squad (RDS). 5) Disaster Management. 6) Radio Communications. 7) Regional Disaster Response Team (RDRT). 8) Boat Handling. These subjects organised by the Malaysian Red Crescent under supervision of the International Humanitarian Law (IHL) with International Committee of the Red Cross (ICRC) and Regional Disaster Response Team (RDRT) with International Federation of the Red Cross and Red Crescent (IFRC)”.*

**More Information on Regulatory Compliance to Department Levels**

Manager (under national level)

*“My department should be supplied with in depth and extensive information on the Prime Minister’s Department intention regarding regulatory compliance plan and training programme. At least we know some clue what is going on now”.*

**Resourcing**

**a. Build more Emergency Housing**

Technical Staff (under state level)

*“Build more emergency housing to reduce group population. Group size should be reduced to one family per room or the best is one unit per family. Odd cases two flat per family because of household members more than capacities allowed in one flat”.*

**b. Create the Post of Working Assistant**

Clerical Staff (under national level)

*“If actors are aided in their work by actors’ assistants, maybe they would agree to give regulatory compliance implementation a try, but I still think it would be difficult for them to cope”.*

**Department Level System**

**a. Systems that is clear and Focus**

Manager (under national level) had tried Direct Contact with the Disaster Victims

*“The system applied got to be clear and focus in order to give speedy work towards disaster victims’ satisfaction. Less bureaucracy, please”.*

**b. Longer Periods of Direct Contact with the Disaster Victims**

Clerical Staff

*“The actors that are responsible to do their work should give extra attention to the disaster victims and stay with them much longer. Maybe this way at least may comfort them”.*

**c. Volunteered by the Disaster Victims to Get Involve**

Technical Staff (under national level)

*“Make sure that the disaster victims who want to get involve in disaster victims’ group really want to help and not to be forced. I meant that they volunteered themselves”.*

## **Regulatory Compliance Enforcement Office**

### **a. Every District Office should have An Officer In-charge of Regulatory Compliance**

Technical Staff (under national level)

*“There should be always being one emergency housing officer in every district offices looking after regulatory compliance so that actors don’t have to go to the state or national department every time they have problems. These officers should also be responsible for ensuring that regulatory compliance implementation runs smoothly, and would be a trouble shooter if there are hitches in its implementation”.*

### **b. Relevant Authorities should carry Out Continuous Monitoring**

Clerical Staff (under district level)

*“Continuous monitoring of the MNSC Directive 20 once implemented is the key towards regulatory compliance”.*

### **c. Officer in Charge should have Regulatory Compliance Background**

Technical Staff (special body appointed by the government)

*“An officer in charge of every department in compliance matters should have emergency housing background. If not, they would not appreciate the problems of providing emergency housing for the disaster victims under resilience difficulties”.*

## **3.7**

### **Strategies to Encourage Actors to Accept Regulatory Compliance under the MNSC Directive 20**

#### **Personal Incentives**

##### **a. Monetary Rewards**

Clerical Staff (under national level)

*“Site staff is currently being paid incentive allowance. Therefore other actors who are involved in the regulatory compliance implementation should also be given such allowance”.*

Clerical Staff (under state level)

*“I don’t care much about monetary rewards. If including these disaster victims makes my work difficult and troublesome, I don’t want it even if the government gives me extra money per month”.*

##### **b. Actors Participation in the Regulatory Compliance Programme Made Part of Actors’ Appraisal**

Clerical Staff (under district level)

*“It will meant something if this regulatory compliance is part of our appraisal”.*

##### **c. Actors Send for Overseas Trips to Study Working Techniques and Strategies towards Regulatory Compliance Group Setting**

Clerical Staff (under national level)

*“Actors involved in regulatory compliance should be sent to foreign country practicing full regulatory compliance. This would enable actors to learn and experience different working techniques and strategies used by their foreign counterparts in dealing with disaster victims under resilience difficulties. They could then share and spread their knowledge and experiences to other actors involved in handling disaster victims under resilience difficulties”.*

##### **d. Further Studies in Emergency Housing**

Technical Staff (special body appointed by the government)

*“At the moment, there are several academic institutions offer studies in compliance, emergency assistance and housing studies. Actors involved in the implementation of regulatory compliance should be sponsored by the Prime Minister’s Department to attend these courses”.*

#### **Material Resources**

Clerical Staff (under national level)

*“I want all working materials required to handle disaster victims in my group to be made available. I don’t want to share my own personal belongings especially for these disaster victims. From what I can see at site these disaster victims require lots of different types of working materials. Not only for the disaster victims, hopefully had the site office got to be complete too”.*

Manager (under state level)

*“At the moment in our department we don’t have enough facilities and responders for each of our disaster victims. They have to share whatever facilities and medical stuff that are available. We try to give each victim medical responses as soon as possible”.*

## **Human Support**

### **a. Support from Technical Staff**

Clerical Staff (under district level)

*“If this programme is implemented totally, assistants to site staff should be made available especially from technical division because we are inexperienced in dealing with these disaster victims’ under resilience difficulties. We need to ask someone how to start, what to do and what not to do”.*

### **b. Support from Managers**

Clerical Staff (under national level)

*“Actors who have disaster victims included in their groups should be given moral support by the manager. Don’t just put these disaster victims in the group and leave them to the discretion of the actors to fulfill their resilience difficulties. The manager should discuss with actors the problems they are having with the programme, and try to solve these problems”.*

### **c. Support from other Actors**

Officer

*“The actors must be encouraged to work together in overcoming the compliance problems of disaster victims under resilience difficulties. There must not be any boundary between actors’ in the department level. Actors who are not involved in this programme must not feel that regulatory compliance in the department level is not their responsibility. All actors should shoulder the same responsibilities at site. If this can be achieved, then regulatory compliance would have a chance to succeed”.*

## **Reduction of Clerical Staff Workloads**

### **a. Reduce Group of Population**

Clerical Staff (under state level)

*“Reduce the group population. Fewer disaster victims create fewer facilities sharing in the group. Thus more space for movement and more opportunity to give special attention to disaster victims”.*

### **b. Restriction of Regulations**

Technical Staff (under national level)

*“Actors will accept these disaster victims if regulations totally restricted”.*

### **c. Include Disaster Victims with Resilience Difficulties under the MNSC Directive 20 in the Low Income Group**

Technical Staff (under national level)

*“Our department may find the right channel to help people under low income group. Thus it would be more appropriate to include disaster victims under this group and benefit from not only disaster programme but also other national programme for low income group”.*

### **d. Reduce Working Periods and Non-working Responsibilities**

Manager (district)

*“I am not very keen on giving monetary rewards as incentive just because actors have to give that extra attention to disaster victims under resilience difficulties. What should be done is to lessen actors’ workloads because actors I think would prefer to have fewer working burdens rather than monetary rewards”.*

### **e. Different community, Place in Different Group**

Clerical Staff (district)

*“There should be different community place for one particular different group. Malays in their own group and the way around because of different race got their own belief”.*

**Provide Proof to Actors that Regulatory Compliance does Work**

Clerical staff (under national level) had tried Direct Contact with the Disaster Victims

*“The compliance authorities should prove to the actors that the MNSC Directive 20 can work and would benefit both disaster victims and actors. When actors have seen that it really does work, they would be more receptive toward the idea”.*

**Involve Actors Recognised as Excellent Actors**

Technical Staff (special body appointed by the government)

*“Initially actors involved in this programme should be chosen from those recognised by the Prime Minister’s Department as the national excellent actors and awarded good working performance appraisal. As officially recognised excellent actors, they will have all the working qualities that were expected to make regulatory compliance work”.*

## Appendix 24: Summarises Response

**Table 8.1: Document on the Prime Minister's Department of Regulatory Compliance under the MNSC Directive 20**

Professional Status	Received									
	YES					NO				
	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	1	3			4	14	5	10	5	34
2. Manager		1			1	1		1	1	3
3. Technical Staff	7	7	3	4	21	2		1		3
4. Officer								5		5
<b>Total</b>	26					45				
<b>%</b>	35.0					65.0				

Source: Author

**Table 8.2: Actors Acceptance to the MNSC Directive 20 Implementation**

Professional Status	No					Undecided					Yes				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	N
1. Clerical Staff		4	5	4	13	3	1		2	6	9	5	5		19
2. Manager	1		1		2				1	1	1				1
3. Technical Staff	2	2	2		6		2	1		3	6	2	4	3	15
4. Officer			2		2						3				3
<b>Total</b>	23					10					38				
<b>%</b>	32.0					14.0					54.0				

Source: Author

**Table 8.3: Actors Description of Regulatory Compliance**

Descriptions	Number				
	N	S	D	SB	n
Efforts of personnel in department of agencies to comply with relevant regulations	7	6	5	3	21
Agencies should ensure that their activities are in compliance with all applicable federal, state, and local laws and regulations	5	1	5		11
Agencies should ensure that all staff members are appropriately credited for the functions they will be performing	4		2	1	7
Agencies should be aware of, and comply with, any state or local requirements related to the provisions or regulations		4	1		5
<b>Total</b>	44				
<b>%</b>	62.0				

Source: Author



**Table 8.4: Actors Description of Emergency Housing**

Descriptions	Number					
	N	S	D	SB	n	%
Considered as a place with the fast build process after emergency occurs before disaster victims move to permanent house	16	10	7	6	39	55.0
Any rigid or mobilise structures without attaching to the ground permanently for human shelter for the usage within 30 consecutive days	5	4	1	2	12	17.0
A closed partition or group of rooms built within an existing dwelling to form a single habitable unit	2	1	3	1	7	10.0
An enclosed floor space to make a room or habitable area so that disaster victims can continue livelihood	2	1	4		7	10.0
A wholly or partly enclosed space intended to be used by disaster victims			5	1	6	8.0
<b>Total</b>	71					100.0

Source: Author

**Table 8.5: Definition of Disaster Victims under the MNSC Directive 20 in the Malaysian Context**

Definitions	N	S	D	SB	n	%
1. Disaster victims under resilience difficulties	21	15	11	7	54	76.0
2. Disaster victims with physical effects under resilience difficulties	2		6	2	10	14.0
3. Disaster victims under adaptation problems	1	1			2	3.0
4. Disaster victims with resilience difficulties under authorities' responsibilities	1		3	1	5	7.0
<b>Total</b>	71					100.0

Source: Author

**Table 8.6: Discussion of Regulatory Compliance**

Professional Status	Never Discussed					Had Discussed					Only with Selected Actors				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	11	8	9	2	30	4			3	7			1		1
2. Manager	1				1				1	1		1	1		2
3. Technical Staff	5	4	4	1	14						4	3		3	10
4. Officer			4		4								1		1
<b>Total</b>	49					8					14				
<b>%</b>	69.0					11.0					20.0				

Source: Author

**Table 8.7: Actors' Knowledge of their Department Level's of Disaster Victims' Involvement under the MNSC Directive 20**

Professional Status	Know Disaster Victims under the MNSC Directive 20														
	Not very Well					Moderately Well/ some do, some do not					Quite Well				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	9	7	7	4	27	3		2	1	6	3	1	1		5
2. Manager			1	1	2	1	1			2					
3. Technical Staff	4	5	1	4	14		2	3		5	5				5
4. Officer															
Total	43					13					10				
%	65.0					20.0					15.0				
Note: 5 Officers (D) without comment.															

Source: Author

**Table 8.8: Actors Perceived Rationale of the Prime Minister's Department Plan**

Descriptions	N	S	D	SB	n
To set a margin and uniformity to the actors in carrying their duties	2	4	1	2	9
To prevent disaster victims under the MNSC Directive 20 from having trauma	3	2	2		7
To establish understanding towards regulatory compliance in department level	4		1	1	6
To increase the level of regulatory compliance in all department	2	3		1	6
To accommodate disaster victims under the MNSC Directive 20 into a progressive disaster society	1	2	2		5
To create a 'caring feeling' by the actors		2	1	2	5
To give disaster victims under the MNSC Directive 20 equal opportunities in regulatory compliance					1
<b>Total</b>	39				
<b>%</b>	55.0				

Source: Author

**Table 8.9: Actors' Ability towards Regulatory Compliance under the MNSC Directive 20**

Professional Status	Abilities to Comply														
	No					Unsure					Yes				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	10	7	4	1	22	3		2		5	2	1	4	4	11
2. Manager		1			1				1	1	1		1		2
3. Technical Staff	4	1	1	4	10			3		3	5	6			11
4. Officer			4		4								1		1
<b>Total</b>	37					9					25				
<b>%</b>	52.0					13.0					35.0				

Source: Author

**Table 8.10: Rights of Disaster Victims under the MNSC Directive 20 to Regulatory Compliance**

Professional Status	Have Rights to Regulatory Compliance														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	4	1	2		7	6	3	1	1	11	4	4	7		15
2. Manager						1		1		2		1		1	2
3. Technical Staff						5	4	4	3	16	4	3		1	8
4. Officer			1		1			2		2			2		2
Total	8					31					27				
%	12.0					47.0					41.0				
Note: 5 clerical staff (1 N, 4 SB) declined to comment.															

Source: Author

**Table 8.11: Disaster victims Knowledge Gained of Regulatory Compliance**

Professional Status	Will Improve														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	4	4	3		11	8	4	6	5	23	3		1		4
2. Manager				1	1		1			1	1		1		2
3. Technical Staff	1	3			4	5	2	4	3	14	3	2		1	6
4. Officer			3		3								2		2
<b>Total</b>	19					38					14				
<b>%</b>	27.0					54.0					19.0				

Source: Author

**Table 8.12: Disaster Victim Development of Social Skills of Regulatory Compliance**

Professional Status	Will Develop														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff						8	4	6		18	7	4	4	5	20
2. Manager							1			1	1		1	1	3
3. Technical Staff								4		4	9	7		4	20
4. Officer								1		1			4		4
<b>Total</b>						24					47				
<b>%</b>						34.0					66.0				

Source: Author

**Table 8.13: Disaster Victims Emotional Development**

Professional Status	Emotional Development will Enhance														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	2	1	2		5	3	1			4	1		2		3
2. Manager								1		1					
3. Technical Staff		3	1		4	2				2	2	1			3
4. Officer			1		1								2		2
<b>Total</b>	10					7					8				
<b>%</b>	40.0					28.0					32.0				

Source: Author

**Table 8.14: Suitability of Regulations for Actors and Disaster Victims under the MNSC Directive 20**

Professional Status	Is Suitable														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	3	1			4	11	1	10	5	27	1	6			7
2. Manager						1	1	1	1	4					
3. Technical Staff						3	6	4	4	17	6	1			7
4. Officer								5		5					
<b>Total</b>	4					53					14				
<b>%</b>	6.0					75.0					19.0				

Source: Author

**Table 8.15: Effect of Regulatory Compliance on Disaster Victims' Adaptation**

Professional Status	Will Negatively Effect														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	6	5	5	5	21	5		2		7	4	3	3		10
2. Manager			1		1	1				2		1			1
3. Technical Staff	7	4	4	3	18	2				2		3		1	4
4. Officer			3		3								2		2
<b>Total</b>	43					11					17				
<b>%</b>	61.0					15.0					24.0				

Source: Author

**Table 8.16: Effects on Department Levels' Performance**

Professional Status	Will Negatively Effect Percentages														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff		8	4		12	2		3	1	6	13		3	4	20
2. Manager	1	1			2			1		1				1	1
3. Technical Staff	9	4		1	14						3	4	3		10
4. Officer												5			5
<b>Total</b>	28					7					36				
<b>%</b>	39.0					10.0					51.0				

Source: Author

**Table 8.17: Regulations Most Favoured for Regulatory Compliance**

Professional Status	Most Favoured for Regulatory Compliance														
	Planning and Building Codes					MNSC Directive 20					International Standard				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	10		5		15	3	5	4		12	2	3			5
2. Manager	1			1	2		1	1		2					
3. Technical Staff	5	1			6	4	6		4	14					
4. Officer								3		3					
<b>Total</b>	23					31					5				
<b>%</b>	39.0					53.0					8.0				

Notes: 4 clerical staff (SB) and 2 technical staff (D) said all three types are not suitable. 1 clerical staff (SB) was unsure, and 1 clerical staff (D) declined to nominate. 2 officers (D) and 2 technical staff (D) said all three are suitable.

Source: Author

**Table 8.18: Actors Willingness to Support Regulatory Compliance**

Professional Status	Willingness to Support Regulatory Compliance Implementation														
	No					Undecided					Yes				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	9	2	6	1	18	3	2			5	3	3	4		10
2. Manager		1	1	1	3	1				1					
3. Technical Staff	1		4	3	8	2	6			8	3	1		1	5
4. Officer								5		5					
<b>Total</b>	29					19					15				
<b>%</b>	46.0					30.0					24.0				

Notes: No comments from 5 clerical staff (1 S, 4 SB), 3 technical staff (N).

Source: Author

**Table 8.19: Ability of Regulatory Compliance to Produce ‘Caring Feeling’ and Acceptance**

Professional Status	Generate ‘Caring-feeling’ and Acceptance														
	Disagreed					Undecided					Agreed				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff						10	5	5	1	21	5	3	5	3	16
2. Manager							1	1		2	1				1
3. Technical Staff						5	3	1	2	11	4	4	2	2	12
4. Officer								2		2			3		3
<b>Total</b>						36					32				
<b>%</b>						53.0					47.0				

Note: 1 clerical staff (SB), 1 manager (SB), 1 technical staff (District) said acceptance and ‘caring-feeling’ can be generated even under out regulatory compliance.

Source: Author

**Table 8.20: Actors Willingness to Attend In-Service Training**

Professional Status	Willingness to Attend In-service Training														
	No					Undecided					Yes				
	N	S	D	SB	n	N	S	D	SB	n	N	S	D	SB	n
1. Clerical Staff	10	3	3	2	18	3				3	2	5	7	3	17
2. Manager			1	1	2	1				1		1			1
3. Technical Staff	2	4		4	10	5	2	4	2	13		1			1
4. Officer			2		2			1		1			2		2
<b>Total</b>	32					18					21				
<b>%</b>	45.0					25.0					30.0				

Source: Author

**Table 8.21: Conditions for Accepting Regulatory Compliance as Perceived by Actors**

Conditions	Total					
	N	S	D	SB	n	%
1. Directed by the Prime Minister’s Department	12	9	7	7	35	46.0
2. Disaster victims under the MNSC Directive 20 have certain abilities:						
a. Have acquired the prerequisite skills;	4	3	4	1	12	15.0
b. Have no behavioural problems;	3	6	4	6	19	25.0
c. Would not accept disaster victims under the MNSC Directive 20 without behavioural problems	1		3	1	5	6.8
3. For non-religious regulations only			5		5	6.8
<b>Total</b>	76					

Source: Author

**Table 8.22: Barriers towards Regulatory Compliance Implementation**

Barriers	Total					
	N	S	D	SB	n	%
1. Lack of information	2	1	9	2	14	4.8
2. System applied:						
a. Internal;	2	4			6	2.1
b. International	5		1		6	2.1
3. Actors workloads:						
a. Capacity of emergency housing;	4	12	12	19	47	16.2
b. Responsibilities not related to working	2				2	0.5
4. Actors skill:						
a. Actors not trained towards the MNSC Directive 20;	5	12	21	17	55	19.0
b. Actors with specific skills only	1	4	8		12	4.1
5. Appraisal pressure	2	3	1		6	2.1
6. Acceptance of disaster victims under the MNSC Directive 20:						
a. Managers' negative perception about the importance of regulatory compliance to disaster victims under the MNSC Directive 20;		6	4		10	3.4
b. Unwillingness of actors to accept disaster victims under the MNSC Directive 20 into their groups;		5	3	16	24	8.3
c. Negative acceptance of disaster victims under the MNSC Directive 20 by disaster communities;	6	1			7	2.4
d. Negative perception of disaster victims under the MNSC Directive 20 by relatives of disaster victims;	7	1	3		11	3.8
e. Unwillingness of actors to relinquish their working responsibilities				1	1	0.3
7. Resourcing:						
a. Lack of regulatory compliance facilities and/or materials under the MNSC Directive 20;	2	7	15	7	31	10.7
b. Lack of emergency housing;	1	8	1	8	18	6.2
c. Inadequate number or lack of technical staff in the department level.		10	8	3	21	7.2
8. Abilities of disaster victims under the MNSC Directive 20:						
a. Disaster victims behaviours;	2	2	1		5	1.7
b. Disaster victims without formal education	8	2	1		11	3.8
9. Unwillingness of disaster victims under the MNSC Directive 20s themselves to be included in disaster victims' group	4				4	1.3

Source: Author

**Table 8.23: Changes Suggested Prior to Regulatory Compliance Implementation**

Changes	Total					
	N	S	D	SB	n	%
1. Training in emergency housing:						
a. Actors given in-service training in emergency housing;	15	12	20	5	52	35.6
b. Disaster victims under the MNSC Directive 20 and regulatory compliance to be included in the training programme together with the actors	3	3			6	4.1
2. Department level should be supplied with in-depth and extensive information on the Prime Minister's Department regulatory compliance plan	6	17	18		41	28.1
3. Resourcing:						
a. Build more emergency housing;		2	5	9	16	11.0
b. Create the post of working assistant	1	1	9	5	16	11.0
4. Department level system:						
a. Systems that is clear and focus;		1	6		7	4.8
b. Longer periods of direct contact with the disaster victims;		2			2	1.4
c. Volunteered by the disaster victims to get involve		1			1	0.7
5. Regulatory compliance enforcement office:						
a. Every district office should has an officer in charge of regulatory compliance;			2		2	1.4
b. Relevant authorities should carry out continuous monitoring;		1			1	0.7
c. Officer in charge should have regulatory compliance background			2		2	1.4

Source: Author

**Table 8.24: Strategies Recommended to Encouraging Acceptance of Regulatory Compliance by Actors**

Strategies	Total					
	N	S	D	SB	n	%
1. Personal incentives:						
a. Monetary rewards;	6	8	20	6	40	17.0
b. Actors participation in the regulatory compliance programme made part of actor's appraisal;	3	3	6		12	5.2
c. Actors send for overseas trip to study working techniques and strategies toward regulatory compliance;			2	2	4	1.7
d. Actors involved in regulatory compliance programme are given chances to further their studies in emergency assistance and housing studies at higher level		2		1	3	1.3
2. Material resources	2	4	20	7	33	15.0
3. Provide all human support:						
a. Support from technical staff members;	9	12	12	5	38	16.0
b. Support from managers;	1	5	6		12	5.1
c. Support from other actors	3				3	1.3
4. Reduction of actors' workload:						
a. Reduce disaster victims and group of population involved in regulatory compliance programme;	7	26	13	2	48	20.4
b. Restriction of regulations;	1		5	1	7	2.9
c. Include disaster victims with resilience difficulties under the MNSC Directive 20 in the low income group and get benefit from other national programmes;	3		2		5	2.1
d. Reduce actors working periods and non-working responsibilities;	4	4	5	1	14	6.0
e. Different community, place in a different group				1	1	0.4
5. Provide proof to actors that regulatory compliance does work		5	4	1	10	4.2
6. Involve actors recognised as excellent actors		2			2	0.9

Source: Author



## Appendix 25: Typical Qualitative Analysis (National and State level)

### Affective

#### Perceived Rights of Disaster Victims under the MNSC Directive 20 to Regulatory Compliance

##### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Three clerical staff members in the department level expressed the opinions that disaster victims have the rights to be included in disaster victims' group. Their reasons were that the human rights policy guarantees equal opportunities for all disaster victims. One clerical staff was clearly of the opinion that these disaster victims have the rights to regulatory compliance provision who stated that (Appendix 23, 2.1):

*"If we gave them the rights to recover independently they would not get their full rights in regulatory compliance in MNSC Directive 20. In regulatory compliance not everybody may get what they are asking for. It is not easy to please everybody. We have to consider the benefit for both sides here".*

The manager, one technical staff and three clerical staff members had mixed views about this. They reasoned that disaster victims might have the rights to regulatory compliance, if they are ready mentally and behaviourally, and if they could cope with the adaptation environment of disaster victims' group. These actors felt the over-emphasis on religious and cultural matters in disaster adaptation would make regulatory compliance difficult for these disaster victims. They recommended partially rather than full recommendation of disaster victims and only in certain regulations. To quote one technical staff that (Appendix 23, 2.1):

*"For some disaster victims, yes, for others, no, because of the types of responsibilities used in disaster victims' group is not suitable for some of these disaster victims who are not ready for regulatory compliance. The capabilities of adaptation and most of them without formal education make it difficult for the majority of our disaster victims to cope with disaster adaptation".*

##### **b. Department (under national level)**

Four technical staff members and one clerical staff in this department level agreed that disaster victims have the rights to regulatory compliance because equal regulatory compliance opportunities so as to maximise their adaptation potential, to socialise fully and recovered faster. To quote one technical staff that (Appendix 23, 2.1):

*"Our regulatory compliance philosophy clearly stated that 'Compliance is for all', and the MNSC Directive 20 states that 'Disaster victims with resilience difficulties should be given the opportunities to maximise their potential recovery'. So I don't see why they should be denied their rights to be included in disaster victims' group if it could maximise their adaptation potential".*

They conceded that regulatory compliance would prevent these disaster victims from developing feelings of inferiority. One clerical staff stated that (Appendix 23, 2.1):

*"They have the rights to mix with disaster victims to prevent them from being isolated and demoralised".*

Four technical staff members and three clerical staff members had mixed feelings. They argued that only 'high-functioning' disaster victims might have the capacity to benefit from regulatory compliance because the assumption that these disaster victims could cope with the pace of disaster recovery adaptation. However, they agreed that other disaster victims might have the rights to be placed in disaster victims' group represented by their leader. One clerical staff said that (Appendix 23, 2.1):

*"I think they have the rights to become members of disaster victims' group. They got their own leaders at least can represent them and voice their feeling".*

Four clerical staff members said the current regulatory compliance facilities for disaster victims should be maintained to prevent them from isolation and negative effects. These were the reason why they disagreed about these disaster victims' rights towards regulatory compliance. One clerical staff declined to make any comment.

### **c. Department (under state level)**

The manager, four clerical staff members and three technical staff members accepted that disaster victims had the rights to regulatory compliance in order to prevent them from being isolated in disaster society and also to give them the chance to learn to be independent. Disaster victims felt appreciated and show positive action towards every issue arises. This was clearly stated by the technical staff who stated that (Appendix 23, 2.1):

*“They are also human. If we can clarify their rights towards regulatory compliance they will feel appreciated and try to contribute to the benefit of their communities. Above all they can also help the government to deliver what the purpose of the development”.*

Four technical staff members and three clerical staff members who were unsure said that maybe disaster victims with moderate difficulties may recovered by themselves, but this concept of regulatory compliance was necessary for those with severe recovery difficulties. One clerical staff said that (Appendix 23, 2.1):

*“Some disaster victims are able to rise from the fall. Unfortunately most of them are vulnerable. Government is their only hope to help them back to their previous life before disaster. Even worse, most of them do not have knowledge in emergency housing”.*

One clerical staff said that only disaster victims who wanted to be regulated deserved regulatory compliance.

### **Perceived Benefit of Regulatory Compliance to Disaster Victims under the MNSC Directive 20**

Actors were asked about the benefit of regulatory compliance to disaster victims under the MNSC Directive 20. All actors mentioned the knowledge and social benefits of regulatory compliance. However, some actors interviewed expressed that some disaster victims with adaptation difficulties might experience a degree of personal support and emotional satisfaction if other disaster victims including the actors were socialised with them for longer term.

### **Knowledge Gained of Disaster Victims under the MNSC Directive 20**

#### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

The manager and two clerical staff members acknowledged that regulatory compliance would increase the knowledge of disaster victims because they can learn from their disaster peers. For example, they could learn new guidelines in everyday conversations. Regulatory compliance would also help disaster victims to learn to concentrate on their recovery process by following the example of other disaster victims in the group. Besides, they argued that the knowledge of disaster victims is bound to improve even if they just involved in recovery work of their disaster peers. One clerical staff said that (Appendix 23, 2.2.1):

*“Disaster victims might think that they are weaker than other disaster victims in the groups in terms of knowledge. In disaster victims’ group, they might cope with other members’ adaptation. Even if these disaster victims just followed what his/her colleagues do, eventually they would learn something”.*

The two technical staff members and two clerical staff members had mixed feelings. Two clerical staff members were unsure because they had never handled disaster victims. The technical staff noted that, when the department level tried direct group contact with the disaster victims, the knowledge of some disaster victims included in disaster victims’ group did improve. Therefore they claimed that disaster adaptation might have been conducive to the adaptation of some disaster victims in improving their knowledge in regulations. They also reasoned that these disaster victims’ knowledge might improve if actors working along with them and give them enough attention they required.

Two clerical staff members disagreed that regulatory compliance would educationally benefit disaster victims in terms of knowledge because they questioned about inability of these disaster victims to cope with the pace of disaster adaptation. Actors would not be able to give these disaster victims their full attention due to the size of disaster victims in their groups. One clerical staff said that (Appendix 23, 2.2.1):

*“There could be two side effects. If actors could provide these disaster victims with all attention they require then maybe their knowledge will improve. But if actors are too occupied and busy with other disaster victims*

*and can only give minimal individual guidance to these disaster victims, then their learning process will decline”.*

**b. Department (under national level)**

Three technical staff members and one clerical staff agreed that regulatory compliance would improve the knowledge of disaster victims. They said that regular interaction between disaster victims and actors would increase communication skills of the disaster victims. They felt that this would incidentally increase some aspects of knowledge attainment. They also commented that the ability of social learning would help to improve their knowledge. One technical staff said that (Appendix 23, 2.2.1):

*“From my experience with disaster victims who regularly interact with actors during break times or discussion, their ability to communicate has improved. My assumption is that there will be an improvement in their knowledge about regulations, guidelines and policies”.*

Three technical staff members and six clerical staff members were unsure. Four clerical staff members were unsure because they had never handled disaster victims. The other actors said the knowledge of disaster victims might improve if actors were able to provide the maximum individual attention required. Regulatory compliance will not increase the knowledge of every victim because some of these disaster victims have serious depressions problem.

One technical staff and two clerical staff members disagreed that regulatory compliance will improve the knowledge of disaster victims because actors do not have time to provide enough individual attention as required. They argued that actors would always prioritise some cases in disaster victims group. They also said that disaster victims would not be able cope with the pace of disaster adaptation. This was the opinion of one clerical staff who said that (Appendix 23, 2.2.1):

*“From my experience, they are very talkative if we discussed anything informally. They are active in discussions with actors and involvement in the communities. But, when they return to my disaster victims’ group, they are quiet and timid. Based on this, maybe, it is better in terms of knowledge to let their leaders to voice their needs based on the limited information they knew”.*

**c. Department (under state level)**

Two technical staff members agreed that the knowledge of disaster victims will increase if included in disaster victims’ group because their abilities are considered equal to if not better than the majority of actors. One technical staff said that (Appendix 23, 2.2.1):

*“Some disaster victims who have ability equal to if not better than the majority of actors. Their knowledge will surely increase”.*

The manager, two technical staff members and four clerical staff members expressed mixed views. Two clerical staff members were unsure because they had never handled disaster victims. The rest of the actors argued that, for disaster victims who have ‘normal’ abilities, knowledge gained might improve. It was also considered that regulatory compliance might improve the knowledge of disaster victims if actors are able to provide them with enough individual attention they required. But, for those who also suffered from depressions, regulatory compliance would not help their knowledge improvement. This was exemplified by the viewpoint of the technical staff who stated that (Appendix 23, 2.2.1):

*“If disaster victims have normal ability they will be able to catch up with actors, and their knowledge should be better in disaster victims’ group. But lately disaster victims sent to this department level are also suffering from other resilience difficulties, like mental and physical difficulties. Those who also suffer from mental difficulties, even though not very severe, will not achieve much in terms of knowledge if included in disaster victims’ group”.*

Three technical staff members and four clerical staff members disagreed because the knowledge gained by disaster victims’ could be improved only if they were involved in regulatory compliance process because of their participation in decision making. Besides, they argued that disaster victims would not be able to keep up the pace in disaster atmosphere without accompanying by the actors.

## Disaster victims under the MNSC Directive 20, Social Development

All actors interviewed either agreed or had mixed views on the benefits of regulatory compliance to the social development of disaster victims under the MNSC Directive 20. This was also considered as acceptance of disaster victims by actors in disaster victims' group.

### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

The manager, two technical staff members and three clerical staff members believed that regulatory compliance would improve the social development of disaster victims. They claimed the major success of any development project was the forging of positive relationships between disaster victims and actors. Regulatory compliance implementation was also enabling the disaster victims' to adapt to their peers. One technical staff and one clerical staff said that (Appendix 23, 2.2.2):

*“Socially, the engagement of disaster victims was a success. These disaster victims were able to make friends with actors, even though there are still those who would discriminate these disaster victims”.*

*“Their social skills will develop because of they will interact and socialise regularly with actors, thus ensuring that they behave in a socially acceptable manner”.*

Four clerical staff members had mixed opinions. They agreed the disaster victims' social development might improve if (1) Actors were to play their part in encouraging meaningful relationship between actors and disaster victims, and (2) if actors themselves were willing to accept disaster victims.

### **b. Department level (under national level)**

Seven technical staff members and four clerical staff members in the department level were confident that regulatory compliance would improve the social skills of disaster victims. Regular interaction would familiarise both actors and disaster victims with each other, thus giving disaster victims opportunities to learn socially. One clerical staff said that (Appendix 23, 2.2.2):

*“If just among them, maybe there will not be much change in the social skills development. But, if included in disaster victims' group it will make great improvements. They will tend to imitate disaster peer behaviours that hopefully are those that are socially acceptable”.*

Four clerical staff members were unsure because they had never handled disaster victims. They also argued that the social skills of disaster victims might improve if actors play an active role in their adaptation development. Unwillingness of actors to accept disaster victims was also given as a reason for their uncertainty.

### **c. Department level (under state level)**

All seven technical staff members and four clerical staff members agreed that regulatory compliance will improve the social skills of disaster victims because positive effect interaction with the actors, disaster victims and societies. Regulatory compliance could make both disaster victims and actors understand and accept each other, thus helping disaster victims to learn to accommodate in disaster society. As one technical staff said that (Appendix 23, 2.2.2):

*“When disaster victims are exposed to actors, and these disaster victims are willing to help them in whatever way they can towards regulatory compliance, then disaster victims will not be conscious of their resilience difficulties and would be at ease interaction with disaster society”.*

The manager was unsure without any reason. The four clerical staff members who were unsure said the social skills of disaster victims might improve if actors could be persuaded to forge a positive relationship with them. Otherwise, social skills development in disaster victims could only develop from their contact with other disaster victims. Thus, the role of the actors is to ensure that this positive relationship actually happens. One clerical staff said that (Appendix 23, 2.2.2):

*“Hopefully actors will encourage these disaster victims to learn to accept other disaster victims in the group. If not, these disaster victims would remain rooted in their area”.*

## The Emotional Development of Disaster Victims under the MNSC Directive 20

During discussion with actors on the issues of disaster victims' emotional development, only 25 actors interviewed were adjudged to have included emotional development in their discussions.

### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

One clerical staff claimed that regulatory compliance would enhance the emotional development of disaster victims because it would make these disaster victims feel accepted by the department level, thus boosting their confidence. The clerical staff said that (Appendix 23, 2.2.3):

*"Including disaster victims in disaster victims' group would make them feel accepted".*

However the two technical staff members and one clerical staff expressed mixed views. On the positive side, regulatory compliance would not make disaster victims feel isolated and segregated. But, the mature disaster victims might be embarrassed when placed in younger groups of disaster victims. They also argued that it was not considered to be placed in disaster victims' group of different races. Besides this, they reasoned that emotional development will be more complicated when it was come to the subject of races and religions. This is expressed in the viewpoint of one technical staff that (Appendix 23, 2.2.3):

*"Disaster victims would not feel isolated and segregated from disaster adaptation if they are able to mix with other in disaster victims' group. But for disaster victims who are older and more mature, they do feel embarrassed when called resilience difficulties in victims' group".*

One clerical staff argued that regulatory compliance would only make disaster victims feel more insecure and isolated because potential of discrimination by actors.

### **b. Department (under national level)**

Two technical staff members were positive that regulatory compliance would widen the scope for unlimited emotional development of the disaster victims. Unrestricted interaction with other disaster victims would increase the disaster victims' self-esteem. Two of these actors offered a detailed account that (Appendix 23, 2.2.3):

*"We had tried to convince disaster victims that what happened was temporarily and government is here to help. Actors even elected some of the leaders in their group to make a report and raised their needs. They have the responsibilities to assist their disaster victims' group members according to regulatory compliance. This hopefully will make our disaster victims feel independent and useful. So far they have done a good job in undertaking the roles expected of them".*

*"We also noticed that disaster victims showed tremendous respect to our colleagues even though these disaster victims realised that these actors are from the outsider and from different background. For example when our colleague made an inspection on the site and the construction progress is very slow and needs to put more labours. Fortunately, most of the disaster victims volunteers to help. In terms of emotional development I believed this is a good progress".*

Two clerical staff members who had mixed opinion felt these disaster victims' confidence might increase if they were placed in disaster victims' group and not to be isolated.

Another clerical staff argued that regulatory compliance would only make these disaster victims feel embarrassed and more aware of their vulnerabilities, thus demoralising them further.

### **c. Department (under state level)**

One technical staff felt that regulatory compliance would enhance the self-confidence of disaster victims because they felt accepted by their disaster peers. The technical staff said that (Appendix 23, 2.2.3):

*"Disaster victims will move in their own group and rise together after the disaster strike. The unity and sense of belonging between them would enhance the self confidence".*

One clerical staff was unsure. They reasoned that disaster victims who would cope with disaster adaptation could be more confident in themselves, but those who encountered difficulties might suffer emotionally in disaster victims' group.

Three technical staff members and one clerical staff stated that regulatory compliance would demoralise these disaster victims because they will be made more aware of their vulnerabilities. The technical staff said that (Appendix 23, 2.2.3):

*“Emotionally, they would be demoralised because of other disaster victims catching up and adapt but they can’t”.*

They also frightened that these disaster victims would be victimised by other disaster victims. Other disaster victims might take advantage of the difficulties that these disaster victims had. In the scene of disaster sometimes it comes back to the concept of first come first serve. Disaster victims who are not strong enough will get the benefit provided by the authorities later on.

### **Perceived Suitability of Regulations for Actors and Disaster Victims under the MNSC Directive 20**

During the time of this study, disaster victims in regulatory compliance were handled by different department levels based on the MNSC Directive 20. The main reference in Malaysia emergency housing relief is the MNSC Directive 20.

#### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

The six technical staff members and one clerical staff agreed that regulations with some modifications are suitable for them. The technical staff stressed that (Appendix 23, 2.3):

*“The present regulations are suitable for our actors. All we need to do is some requirement modifications in order to make it accessible to these actors”.*

The manager and five clerical staff members were unsure. They argued that earlier phase of recovery that emphasis on the acquisition of basic amenities and recovery might be suitable, but not sure about the later phase of recovery because of the uncertainty in resilience difficulties. One clerical staff reported that (Appendix 23, 2.3):

*“After we received transcribed information from disaster site we will calculate and plan required accommodation and will be approved by the superior committee. This is the earlier stage, but if we are trying to comply with the demand from each and every victim at the later stage at site, it will be complicated”.*

Others reasoned that regulations that demanded equality of all disaster victims, especially religious oriented regulations, might not be suitable, but regulations that have a strong emphasis on gender separation might be suitable for these disaster victims. Thus another clerical staff actor reported that (Appendix 23, 2.3):

*“Regulations that require equality of all disaster victims are not suitable for these disaster victims. Regulations that require the separation of gender are okay for these disaster victims. For example in equality of the disaster victims, all disaster victims will be treated as one community doesn’t matters if they are Malays, Chinese or Indians. In reality they got different house of worship but has to provide them separate house of worship even for odd number of races. Waste of unutilised facilities sometime”.*

Two clerical staff members disagreed, thus argued that regulations demand equality of all disaster victims that actors are not capable to resist, and also there are too many religious issues that were not stated in regulations but actors have to look after, for example one clerical staff said that (Appendix 23, 2.3):

*“Nowadays actors are required to learn too many regulations. As it is, they have problems coping with it, especially when it is time to treat disaster victims raised the issue of believes and worship that is out of the regulations in providing them amenities”.*

#### **b. Department (under national level)**

Three technical staff members and six clerical staff members had mixed views. They agreed that regulations related to non-religious issue might be suitable for actors but not to religious demand. Religious demands,

especially places of worship and the way of living might be too difficult for these actors to comply. In the words of one technical staff who stated that (Appendix, 23, 2.3):

*“It is suitable for non-religious demands. But for religious demands like places of worship or way of living, it is a bit difficult for actors to cope with. These actors are the enforcers and not politicians. This situations make it difficult to handle especially if involve disaster victims in decision making”.*

One clerical staff disagreed with the proposition that regulations is suitable for actors because these actors main compliance priorities are the acquisition to facilitate the disaster victims with physical development that may help the victim start back their new life as before disaster strike.

### **c. Department (under state level)**

One technical staff and six clerical staff members said that current regulations are suitable. They claimed that the contents of entire regulations are practical. Also they commented that actors are currently being handled regulations just like other government officers in the country. But they admitted that for certain constraints that involve observations and inquiries, these actors would just have to accept the pressure from the public. As reported by one technical staff that (Appendix 23, 2.3):

*“It is suitable, as a government servant we still have to obey with all other regulations not only in emergency housing that requires all government servants to serve the nation base on our oath and ethics. We will follow orders from our superiors but not from the disaster victims especially when it is time to make decision for the good of all side. Unfortunately, according to humanitarians’ actions we are always in dilemma”.*

The manager, six technical staff members and one clerical staff had mixed views. Their argument was that regulations are only suitable for actors who were involved at the earlier stage of recovery. However, for those at the later stage of recovery at site, regulations are not definite due to the pressure from different groups of communities and disaster victims’ group.

One clerical staff disagreed with the proposition that regulations is suitable for actors and disaster victims because too many religious issues that always highlighted by the disaster victims were not stated in regulations.

## **Perceived Effect of Regulatory Compliance on Disaster Victims**

Actors were asked to express their views on the effect of regulatory compliance on victim’ resilience progress.

### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Two clerical staff members claimed that regulatory compliance would negatively affect victim’ resilience progress because the special attention demanded by disaster victims would make it difficult for actors to finish their duties in the stipulated time. This would be the reason why there was always having a conflict between actors and disaster victims. To quote in full the experience of one actor who said that (Appendix 23, 2.5):

*“Regulatory compliance had an affect on disaster victims’ resilience progress because I had to reallocate my working time in order to overcome the adaptation difficulties of disaster victims. If these disaster victims don’t understand, I have to put in extra effort to make them understand and this affected my progress in finishing my duties. If I didn’t finish the job, disaster victims would not be able to get what had already planned for them. Focus on regulatory compliance always the main task”.*

The manager and two clerical staff members were unsure. If regulatory compliance involves only earlier phase of recovery process, it might not negatively affect the resilience progress of disaster victims. But if it also involves later phase recovery process, then it might then have negative effects because this stage of department levels, actors’ priorities are resilience progress and the presence of disaster victims could be a distraction to carry their work in providing emergency housing. They also argued that if actors could apportion their working time appropriately, disaster victims’ resilience progress might not be negatively affected.

The two technical staff members and four clerical staff members admitted that regulatory compliance would not negatively effect on victim’ resilience progress because (1) actors will handle normally with or

under out regulatory compliance, and (2) Disaster victims do not have adaptation difficulties and thus would be able to live normally.

**b. Department (under national level)**

Two clerical staff members argued that regulatory compliance would have negative effects on victim' adaptation because of the special attention required by other disaster victims that would restricted the amount of time actors spent with disaster victims.

Two technical staff members and three clerical staff members had mixed views. They said that it might not have a negative effect if disaster victims included in the disaster victims' group were free from behavioural problems that would not distracted adaptation of other disaster victims'. Regulatory compliance might have a limited negative effect if it involves at earlier phase of recovery because everybody was not ready. As one technical staff said that (Appendix 23, 2.5):

*"Maybe it will negatively affect disaster victims' resilience progress slightly if other disaster victims have some kinds of behavioural problems. Their difficulties in the group could cause distractions to other victim".*

Five technical staff members and two clerical staff members admitted that regulatory compliance would not negatively affect disaster victims' resilience progress because normal task would proceed as usual, and also disaster victims have 'normal' mentally and psychologically abilities that can adapt to the demanding environment.

**c. Department (under state level)**

The manager, three technical staff members and three clerical staff members felt that regulatory compliance would have a negative effect on victim' resilience progress because actors would spend more time than usual on the other disaster victims, thus depriving disaster victims of working time.

Six technical staff members and five clerical staff members in the department level said that regulatory compliance would not have a negative effect on disaster victims' resilience progress because actors will still try to finish their duties on time. Meanwhile, disaster victims who socialise with other disaster victims and who indeed may be chosen to involve in disaster victims' group decision making would increase their understanding or reinforce their knowledge on the regulations knowledge. As one technical staff said that (Appendix 23, 2.5):

*"Disaster victims who act as readers in regulations practice would benefit in the recovery process because of sharing information would enhance their knowledge of regulations and rights".*

**Perceived Effect of Regulatory Compliance on Department Levels' Performance**

Most of the actors at department level are required to attend the training programme many times a year related to disaster management and many others not only in disaster management. Then, all of these trainings, seminars and anything related to attendance towards knowledge attainment will be counted in order to get promoted and department level appraisal.

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

Four clerical staff members considered that regulatory compliance would lower the department level's performance. They argued that not all the actors had the same abilities to carry out work accordingly. The actors interviewed were unhappy about regulatory compliance that lowering the appraisal of department level performance. Complaints from the disaster victims never stop.

Two clerical staff members who were unsure reasoned that if the regulatory compliance is the key mechanism in their appraisal, they were all disagreed. It might have a negative effect in their performance if they have to follow exactly what is written in regulations because of their main objectives in emergency housing are to provide enough houses.

The manager and one technical staff claimed that regulatory compliance had nothing to do on the department level's appraisal because their job is not just providing housing to the disaster victims instead of their relationship with other actors and department. The managers quote that (Appendix 23, 2.6):

*"Regulatory compliance is not the priority here. We are trying to do our best to help the disaster victims. Regulatory compliance is just a guide of practice. Anyway our job is not just providing housing to the disaster victims but more than that".*



**b. Department (under national level)**

Nine clerical staff members felt that regulatory compliance would lower the department levels' performance because the actors could never achieve the standard required in their training programme. Nothing changes for the actors even if the appraisal might be good for the department.

Eight technical staff members believed that regulatory compliance would not have any effect on their performance because they knew with the purpose of regulatory compliance is not part of the department level's appraisal.

**c. Department (under state level)**

Three technical staff members felt that regulatory compliance would lower the department levels' performance because most of the request from the disaster victims might drag their time in providing emergency relief. One technical staff said that (Appendix 23, 2.6):

*"In emergency relief, we are bonded with the matter of time. Everything has to be done as quickly as possible. Some of the disaster victims judge us from the quality service we gave. Not easy to please everybody. It will affect our performance".*

Most of the actors interviewed said that the training programme in regulatory compliance had always been included when calculating the department level's appraisal. Thus, regulatory compliance would make no difference to the department level's performance. Actors claimed that there were several occasions in the past once regulatory compliance helped to enhance the department levels' performance. The report of their manager was that (Appendix 23, 2.6):

*"In this department level, we combine training programme and application on site. When disasters strike especially Tsunami, it did negatively affect our compliance practice because of time constraints and everybody was panicked. However, in the previous years we tried to enhance our regulatory compliance because of we learnt from our mistakes. Therefore it depends on time constraint".*

**Conative****Perceived Actors Support for Regulatory Compliance Implementation****a. Department (under national level) had tried Direct Contact with the Disaster Victims**

One technical staff had the perception that actors might be willing to support regulatory compliance if the manager gave full support to its implementation. The manager should continuously stress the importance of the programme to actors. Two clerical staff members were willing to support regulatory compliance for humanitarian reasons. Typical illustrative comments from clerical staff members were that (Appendix 23, 3.1):

*"I will support it if other actors support the programme. If I am alone I am not so sure. If there are others willing to support, we can sort of help each other morally and mentally".*

*"I guess I will support the programme for humanitarian reasons".*

The manager and one technical staff had mixed perceptions of actors' willingness to support regulatory compliance implementation, even though the department level had tried direct contact with the disaster victims. The manager felt that actors would reject regulatory compliance initially but could be persuaded to accept it eventually if they are given enough information about it, and if the Prime Minister's Department perseveres with the programme. Two clerical staff members were unsure. They said that they might be willing to support if; (1) regulatory compliance is implemented at earlier phase of recovery, (2) the majority of actors in the department level also support it, (3) disaster victims are ready to be placed in disaster victims' group, and (4) the manager gives his/her full back up to the programme.

Three clerical staff members were unwilling to support regulatory compliance because they felt that present conditions in the department level were not conducive toward its implementation, and it would not benefit actors and disaster victims. They also argued that regulatory compliance would be too demanding because they were not trained in emergency housing. One technical staff declined to comment.

**b. Department (under national level)**

Two technical staff members said that actors in the department level would support regulatory compliance for humanitarian reasons, and they also noted that actors had been supportive of any activities involving disaster victims. One clerical staff was willing to support regulatory compliance for humanitarian reasons. One technical staff offered the comment that (Appendix 23, 3.1):

*“Not all actors will support the implementation of regulatory compliance with the MNSC Directive 20, but I think they will support the programme if they have a better understanding of it”.*

One clerical staff and one technical staff were unsure because they argued that there are actors who might support it and there are also those who might not. Clerical staff members might not be willing to support regulatory compliance because generally they do not know much about it, although might be willing to give it a try if they get more information about regulatory compliance implementation.

One technical staff stated that actors in the department level would not support regulatory compliance because it is too demanding in terms of responsibility. Six clerical staff members expressed their objection towards the implementation because they are not trained to handle disaster victims. They perceived that regulatory compliance gives more pressure on their work responsibilities. Two technical staff members declined to comment.

**c. Department (under state level)**

Three clerical staff members and one technical staff were willing to support the implementation of regulatory compliance because of it is their duties to the public. He quoted that (Appendix 23, 3.1):

*“I don’t have any problem with that because of this is our duties and do our best to serve the public”.*

Six technical staff members who had mixed perceptions about actors’ willingness said that some of the actors might be willing to support regulatory compliance, whilst others might not. Actors might be reluctant to support regulatory compliance because they knew very little about it. Two clerical staff members who were unsure about their willingness to support regulatory compliance said that they need more information about it before they could make up their mind. One considered comment from a clerical staff was that (Appendix 23, 3.1):

*“This is a new thing. I have to know more about it before I can make up my mind to support the implementation or not”.*

Two clerical staff members were opposed the implementation because they were not trained to handle disaster victims. Also the present conditions in the department level could not support regulatory compliance implementation. The manager considered that actors in the department level would not support the programme’s implementation because it was not easy to grant disaster victims’ demand. She also stressed that actors would be willing to support regulatory compliance if they were well informed about regulatory compliance implementation.

One clerical staff declined to comment.

**Perceived Ability of Regulatory Compliance on Promoting a ‘Caring Feeling’ and Acceptance of Disaster Victims under the MNSC Directive 20 by the Actors**

Actors either had mixed opinions or agreed that regulatory compliance would promote a ‘caring feeling’ and acceptance of disaster victims under the MNSC Directive 20. Three actors argued that ‘caring feeling’ and acceptance could be encouraged even under out regulatory compliance.

**a. Department (under national level) had tried Direct Contact with the Disaster Victims**

The manager and three clerical staff members mentioned that regulatory compliance would make actors more caring and acceptance of disaster victims. The relationship between these technical staff members and disaster victims in disaster group would probably be difficult at first, but eventually they would be able to accept disaster victims as their understanding increased concerning these disaster victims’ difficulties.

The two technical staff members and five clerical staff members had mixed views. They said that ‘caring feeling’ and acceptance of disaster victims by the actors might increase if they are willing to participate. They also presumed that there are actors who will never accept these disaster victims, even with

encouragement. They were afraid that these actors would be more aggressive to frighten rather than to help disaster victims. They also expressed the views that a 'caring feeling' and acceptance of disaster victims would be difficult to promote if disaster victims behaved 'abnormally'. The manager, technical staff and four clerical staff members claimed the major success was the building of positive relationship between disaster victims in disaster victims' group.

#### **b. Department (under national level)**

Four technical staff members and two clerical staff members said that regulatory compliance would help to promote acceptance and 'caring feeling' amongst actors because of the benefit they might get especially in understanding the disaster victims problems.

Three technical staff members and five clerical staff members had mixed feelings. They argued that acceptance and a 'caring feeling' might be promoted if actors are active in its promotion. However, they also realised that there will always be a section of actors who would make practical approach to disaster victims who they favoured with. One technical staff and clerical staff interviewed said that even under out an acceptance of regulatory compliance 'caring feeling' could be fostered in actors if the department level made a great effort to involve both actors and disaster victims in activities outside the accommodation. They stated that (Appendix 23, 3.2):

*"There will always be a section of actors who will use practical approach to describe disaster victims included in disaster victims' group. They will only select the disaster victims they preferred to. But, if actors play their part in preventing this from happening, they will eventually accept these disaster victims".*

*"Even though these disaster victims and actors are not placed in the same group, we can still encourage the 'caring feeling' among these disaster victims. The department level frequently arranged activities for disaster victims that involved actors as well. From my daily observation, actors can get along very well with disaster victims".*

#### **c. Department (under state level)**

Four technical staff members and three clerical staff members believed that regulatory compliance would promote acceptance and 'caring feeling' amongst actors and disaster victims. They claimed that actors have been very helpful in disaster victims group. Actors have been known to hear the request from disaster victims according to their rights that are stated in the MNSC Directive 20. Regulatory compliance would therefore reinforce this 'caring feeling' in actors. Meanwhile, disaster victims with moderate difficulties who were placed in disaster victims' group had been well accepted by their colleagues. For example expression from one technical staff who said that (Appendix 23, 3.2):

*"From my observations, actors are very concerned about disaster victims in this department level. For example, actors would take turns to hear disaster victims request so that disaster victims might know their rights and response to it".*

The manager, three technical staff members and five clerical staff members were unsure because they argued that there will always be actors who would discriminate these disaster victims, and thus make them more isolated from their colleagues. However, actors will accept disaster victims if they tried not to isolate themselves from disaster victims group.

### **Perceived Willingness of Actors to Attend In-Service Training in Emergency Housing**

#### **a. Department (under national level) had tried Direct Contact with the Disaster Victims**

One clerical staff expressed their willingness to attend in-service training because it would widen the scope of their work abilities.

The manager and one technical staff were skeptical about actors' willingness to attend training in emergency housing. The manager claimed that they would be willing to attend only if someone in their family had become a victim under the MNSC Directive 20. They also said that actors in general are not interested in regulatory compliance. Three clerical staff members were undecided. They said that they would not volunteer to attend in-service training in emergency housing, but would go if directed by the Prime Minister's Department. One form of anxiety and self-doubt is exemplified by the clerical staff who said that (Appendix 23, 3.3.):

*“I will go if been directed by my superior. But, I won't volunteer to go. What if I could not deliver what is expected from attending the course? I should not have gone in the first place because of personally I just don't have what it takes to handle these disaster victims”.*

Five clerical staff members were reluctant to attend training in emergency housing because; (1) family commitments (training session is too far from home), (2) having no patience to handle disaster victims, (3) not being interested in handling these disaster victims since they had been handling disaster victims for a long time, and (4) one of them being on the verge of retirement.

**b. Department (under national level)**

One clerical staff was willing to attend training in emergency housing in order to diversify their work abilities. The clerical staff said that (Appendix 23, 3.3):

*“I will go so as to increase the range of my working abilities to include disaster victims under resilience difficulties”.*

Four technical staff members with mixed perceptions said that there were few actors who might be interested. They reasoned that actors might be willing to attend in-service training if they are given more information on regulatory compliance, and if the course duration were shorter. One comment that merits attention came from the technical staff, who said that (Appendix 23, 3.3):

*“If actors are given information on regulatory compliance beforehand, they might be interested. What makes actors reluctant to attend emergency housing courses is that they were unsure what they are getting themselves into. If they have a rough idea of what this programme is about, maybe they can be persuaded to attend courses in emergency housing”.*

Five clerical staff members expressed unwillingness to attend in-service training because personal commitments and because of they were not interested in handling disaster victims. One of them was unwilling to attend in-service training because she would be shortly retiring. Four technical staff members had the perception that actors would be reluctant to attend in-service training because of family commitments. They claimed the training session was too far from home, and the course duration too long. They believed that actors were not interested in the regulatory compliance implementation.

**c. Department (under state level)**

The manager and one technical staff believed that very few actors would be willing to attend in-service training because of the difficulties in handling disaster victims. However, she also admitted that two to three actors in her department level would be willing to accept disaster victims in their groups, if given appropriate training. Five clerical staff members were willing to attend because they wanted to learn new working skills. One of them stated that (Appendix 23, 3.3):

*“I will go because of I can learn something different. Previously I learned how to handle a small group of victims, and I hope next time I am adapting to handle bigger crowd”.*

Two technical staff members were unsure reasoned that only few actors interested in handling disaster victims would be willing to attend in-service training. Clerical staff members might be willing to undergo training if the course duration were shortened considerably, and if they could get more information about regulatory compliance.

Four technical staff members had the perception that actors would be reluctant to attend in-service training because; (1) family commitments, and (2) long duration of the course. Three clerical staff members interviewed in the department level were reluctant to attend training because family commitments and lack of interest in handling disaster victims.

## References

- Abbott, A. (1981) "Status and Status Strain in the Professions", *American Journal of Sociology*, Vol. 86, pp. 819–835.
- Abdul Aziz, Y. (1999) *Performance Appraisal: Concepts and Applications*, Sinaran Bross, Kuala Lumpur.
- Abdul-Aziz, A.-R., Jaafar, M. & Hussin, A.-A. (2007) "Are Government-Linked Construction Companies in Malaysia still valid"? *Construction Management and Economics*, Vol. 25, pp. 1009-1019.
- Abney, G. & Hill, L. (1966) "Natural Disasters as a Political Variable - The Effect of a Hurricane on an Urban Election", *American Political Science Review*, Vol. 60, No. 4, pp. 974-81.
- Abrams, C. (1964) *Man's struggle for shelter in an urbanizing world*, MIT Press, Cambridge, Mass.
- Abu-Bakar, A. H., & Hussin, A. A. (1999) *Project Management – Construction Industry's Perspective*, Science University of Malaysia.
- Agere, S. (2000) *Promoting Good Governance: Principles, Practices and Perspectives*, Commonwealth Secretariat, London.
- Aguirre, B. E. (1995) *Can Sustainable Development Sustain Us?* Department of Sociology Texas A&M University, College Station, Texas, USA.
- Ahmad, R. (2007) "Roles of the University in Disaster Management, Department of Emergency Medicine", School of Medical Sciences, Universiti Sains Malaysia 16150 Kubang Kerian, Kelantan, Malaysia, *Malaysian Journal of Medical Sciences*, Vol. 14, No. 2, pp. 1-3.
- Aini, M. S., Fakhru'l-Razi, A. & Daud, M. (2001) "Evolution of Emergency Management in Malaysia", *Journal of Contingencies and Crisis Management*, Vol. 9, No. 1, pp. 46-53.
- Aini, M. S. (2005) "Analysis of Royal Inquiry Report on the collapse of a building in Kuala Lumpur Implications for Developing Countries", *Disaster Prevention and Management*, Emerald Group Publishing Limited.
- Aini, M. S., Laily, P., Sharifah, A., H., Zuroni, J. & Norhasmah, S. (2006) "Sustainability Knowledge, Attitude and Practices of Malaysians", *WIT Transactions on Ecology and the Environment*, Vol. 93, pp. 743-752.
- Aini, M. S., Fakhru'l-Razi, A., Daud, M., Adam, M. & Kadir, R.A. (2007) *Malaysian Socio-Technical Disaster Model and Operational Guide* [Online]  
[www.researchsea.com/html/article.php/aid/2032/cid/6/research/malaysian](http://www.researchsea.com/html/article.php/aid/2032/cid/6/research/malaysian) (Accessed: 21 May 2008).
- Aizzat, M. N., Ramayah, T. & Kumaresan, S. (2005) "Organisational Stressors and Job Stress Among Managers: The Moderating Role of Neuroticism", *Singapore Management Review*, Vol. 27, No. 2, pp. 63-80.
- Akers, R. L., Krohn, M.D., Lonza-Kaduce, L., Radosevitch, M. (1979) "Social Learning and Deviant Behaviour: a Specific Test of a General Theory", *American Sociological Review*, Vol. 44, pp.635-55.
- Akers, R. L. (1985) *Deviant Behaviour: A Social Learning Approach (3<sup>rd</sup> Edn.)*, Wadsworth, Belmont, CA.
- Alexander, D. (1997) "The Study of Natural Disasters, 1977-1997: Some Reflections on a Changing Field of Knowledge", *Disasters*, Vol. 21, No. 4, pp. 284-304.
- Alexander, D. (2002) *Principles of Emergency Planning and Management*, Terra Publishing.
- Allen, T. (1990), "Putting people first again: non-governmental organization and the 'new orthodoxy' for development", *Disasters*, Vol. 14, pp. 63-8.

- Allison, B. (1996) *Research Skills for Students*, London: Kogan Page.
- Allport, G. W. (1971) "Attitudes", In Thomas, K (Ed.) *Attitudes and Behaviour*, G.Britain: Penguin Books Ltd. (Original work published 1935).
- American College of Emergency Physicians, Disaster Committee (ACEP) (1976) *Student Manual for Disaster Management and Planning for Emergency Physician's Course*, Federal Emergency Management Agency (FEMA) Emergency Management Institute, Emmitsburg, MD, no date.
- Amirahmadi (1990) *Revolution and Economic Transition*, Albany, New York: State University of New York Press.
- Anderson, W. A. & Mattingly, S. (1991a) "Future Directions", in *Emergency Management: Principles and Practice for Local Government*, Drabek, T. E. & Hoetmer, G. J. (Eds.) Washington, DC: International City Management Association, pp. 311-335.
- Anderson, M. B. & Woodrow P.J. (1991b) "Reducing Vulnerability to Drought and Famine: Developmental Approaches to Relief Disasters", *Disasters*, Vol. 15, pp. 43-54.
- Anderson, M. B. & Woodrow P.M. (1998) *Rising from the Ashes: Development Strategies in Times of Disasters*. Boulder, CO: Westview Press.
- Anderson, M. B. (1999) *Do No Harm: How Aid Agencies can Support Peace -- or War*, Boulder: Lynne Rienner.
- Aptekar, L. (1994) *Environmental Disaster in Global Perspective*, G.K. Hall, New York, NY.
- Aristotle (384 – 322BC) *The Nicomachean Ethics*, Translated by Jenkinson, A. J. [Online] Available at: <http://books.mirror.org/gb.aristotle.html> (Accessed: 15 July 2008).
- Armstrong, D. M. (1973) *Belief, Truth and Knowledge*, Cambridge University Press.
- Aronfreed, J. (1968) *Conduct and Conscience: The Socializing of Internalized Control of Overt Behavior*, New York: Academic Press.
- Aronfreed, J. (1968) *Conduct and Conscience*, New York: Academic Press.
- Aronfreed, J. (1969) "The Problem of Imitation", in Lipsutt, L.P. & Reese, H.W. (Eds.) *Advances in Child Development and Behaviour*: New York: Academic Press, Vol 4.
- Arrow, K. J. (1971) *Essays in the Theory of Risk Bearing*, Chicago: Markham Publishing Company.
- Arslan, G., Tuncan, M., Birgonul, M. T., & Dikmen, I. E. (2005) "E-bidding Proposal Preparation System for Construction Projects", *Building and Environment*, In Press, Corrected Proof.
- Arslan, H. and Unlu, A. (2007) *The Evolution of Community Participation in Housing Reconstruction Projects after Duzce Earthquake*, Istanbul Technical University [Online] [http://www.grif.umontreal.ca/pages/ARSLAN\\_%20Hakan.pdf](http://www.grif.umontreal.ca/pages/ARSLAN_%20Hakan.pdf) (Accessed: 1 December 2009).
- Asean Disaster Reduction Centre (ADRC) (2006) "Country Report 2006" [Online] [http://www.adrc.or.jp/country\\_report.php?NationCode](http://www.adrc.or.jp/country_report.php?NationCode) (Accessed: 11 April 2007).
- Asia Development Bank (ADB) (2008) "Positioning ADB's Disaster and Emergency Assistance", *Policy in a Changing Regional Environment*.
- Aun, O. E. (1998) *Perceived Organisational Climate, Teachers' Focus of Control and Burnout*, Unpublished MBA Thesis, Penang: Universiti Sains Malaysia.

- Ausaid (2008) "Feasibility Study Report" [Online]  
ausaid.gov.au/hottopics/pdf/AIDRF\_Feasibility\_Study\_Report (Accessed: 21 November 2008).
- Australia Standards (2006) [Online] Available at: <http://www.standards.org.au/> (Accessed: 21 Jun 2007).
- Axelrod, R. (1984) *The Evolution of Cooperation*, New York: Basic Books.
- Axelrod, R. & Cohen, M. D. (2000) *Harnessing Complexity: Organisational Implications of a Scientific Frontier*. New York: The Free Press.
- Ayres, I. & Braithwaite, J. (1992) *Responsive Regulation: Transcending the Deregulation Debate*. New York: Oxford University Press.
- Aysan, Y. & Oliver, P. (1987) *Housing and Culture After Earthquakes: A guide for Future Policy Making on Housing in Seismic Areas*, Oxford: Oxford Polytechnic.
- Aysan, Y. (2006) *Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS)*, Working Paper: Risk Reduction Indicators, ProVention Consortium.
- Bachrach, K. M., Zautra, A. J. (1985) "Coping with a Community Stressor: the Threat of a Hazardous Waste Facility", *Journal of Health and Social Behaviour*, Vol. 26, pp. 127-41.
- Bal, J. & Teo, P. K. (2000) "Implementing Virtual Teamworking, Part 1: a Literature Review of Best Practice", *Logistics Information Management*, Vol. 13, No. 6, pp. 346-352.
- Baldwin, R, Scott, L. & Hood, C. (1998) "Introduction", in Baldwin, R. Scott, C. & Hood, C. (Eds.) *A Reader on Regulations*, Oxford: Oxford University Press.
- Baldwin, R. & Cave, M. (1999) *Understanding Regulation*, Oxford, UK: Oxford University Press.
- Baldwin, R., Hutter, B. M., & Rothstein, H. (2001) *Risk Regulation, Management and Compliance: the London School of Economics and Political Science BRI Inquiry*.
- Bandura, A. (1969) "Social- Learning Theory of Identificatory Processes", in Goslin, D.A. (Ed.) *Handbook of Socialisation Theory and Research*, Chicago, IL: Rand McNally.
- Banton, M. (1964) *The Policeman in the Community*, Tavistock , London.
- Barakat, S. (2003) "Housing Reconstruction After Conflict and Disaster", *Humanitarian Practice Network* [Online] Available at: [www.odihpn.org](http://www.odihpn.org) (Accessed: 20 Jan 2007).
- Barakbah, S. (1971) *Report of the Royal Commission of Enquiry to Investigate into the Causes of the Collapse of a Four-Storey Building on Lot No. 503, Jalan Raja Laut, Kuala Lumpur on 19 October 1968*, Malaysia Government, Kuala Lumpur.
- Barbour, R. S., & Kitzinger, J. (1999) "Introduction: The Challenge and Promise of Focus Groups", in Barbour, R. S., & Kitzinger, J. (Eds.) *Developing focus Group Research: Politics, Theory and Practice*, London: Sage, pp. 1-20.
- Bardach, E. (2001) "Developmental Dynamics: Interagency Collaboration as an Emergent Phenomenon", *Journal of Public Administration Research and Theory*, Vol. 11, No. 2, pp. 149.
- Bardo, J. (1978) "Organisational Response to Disaster: A Typology of Adaptation and Change", *Mass Emergencies* 3: 87-104.
- Barley, S., R. (1985) *Cultural Organisation: Fragments of a Theory, Organisational Culture*, Beverly Hill: Sage Publications.

- Barriball, K., White, A. (1996) "Participation in Continuing Professional Education in Nursing: Findings of an Interview Study", *Journal of Advanced Nursing*, Vol. 23, No.5, pp. 999-1007.
- Barton, A. H. (1969) *Communities in Disaster: A Sociological Analysis of Collective Stress Situations*, New York: Doubleday and Company, Inc.
- Bat, S. T. (1995) *Effect of Organisational Environment and Personal Factors on Work Stress and Organisational Commitment*, Unpublished MBA Thesis, Penang: Universiti Sains Malaysia.
- Becker, G. (1968) "Crime and Punishment: an Economic Approach", *J. Political Economy*, Vol. 76, No.2, pp.169-217.
- Becker, H. (1982) "Culture: A Sociological View", *the Yale Review*, Vol. 71, pp. 513-27.
- Bell, R. (1985) *the Culture of Policy Deliberations*, New Brunswick, NJ: Rutgers University Press.
- Bell, J. (1999) *Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science*, Philadelphia: Open University Press.
- Bendimerad, F. (2003) *Boumerdes Earthquake: Lessons Learned and Recommendations*, 13th World Conference on Earthquake Engineering, Vancouver, B.C., Canada, California: Risk Management Solutions, Inc.
- Bennett, P. (2000) *Anti-trust? European Competition Law and Mutual Environmental Insurance*, *Economic Geography*, Vol. 76, No. 1, pp. 50–67.
- Bennett, J., Bertrand, W., Harkin, C., Samarasinghe, S. & Wikramatillake, H. (2006) *Coordination of International Humanitarian Assistance in Tsunami-Affected Countries*, London: Tsunami Evaluation Coalition.
- Bentham, J. (1789) *an Introduction to the Principles of Morals and Legislation*, Harrison, W. (Ed.) Oxford: Basil Blackwell.
- Berke, P. R. (1993) "Recovery After a Disaster: Achieving Sustainable Development, Mitigation, and Equity", *Disaster*, Vol. 17, No. 2, pp. 93-109.
- Berke, P. R. (2006) *Planning for Post-Disaster Resiliency*, Sage publication.
- Berman, L. (2007) "International Seminar on Post-Disaster Reconstruction: Assistance to Local Governments and Communities", *Urban and Regional Development Institute*, Yogyakarta, Indonesia.
- Bettina, L. (1999) "Compliance Construction in the Context of Environmental Regulation", *Social and Legal Studies*, Vol. 8, No. 4, pp. 549– 67.
- Bhatt, V. (1999) "Architecture for Developing Countries", *Harvard Design Magazine*, pp. 28-32.
- Black, J. (1997) *Rules and Regulators*, Oxford: Clarendon Press.
- Black, J. (2001) "Paper presented at the Australian Law Commission Conference on Penalties", *Policies and Practice in Government Regulation*, Sydney.
- Blaikie, P. T., Davis, I. & Wisner, B. (1994) *at risk: Natural Hazards, People's Vulnerability, and Disaster*, London, New York: Routledge.
- Blunt, P. (1995) "Cultural Relativism, Good Governance and Sustainable Human Development", *Public Administration and Development*, Vol. 15, pp. 5-7.



- Boehm, C. (1999) *Hierarchy in the Forest: The Evolution of Egalitarian Behaviour*, Harvard, Mass: Harvard University Press.
- Bogdan, R. (1972) *Participant Observation in Organisational Settings*, Syracuse, NY: Syracuse University Press.
- Bommer, J. J. & Ledbetter, S. (1986) "Dual Cycles Worsen San Salvador Quake", *New Civil Engineer*, 22 – 23.
- Bommer, J. J. & Ledbetter S. (1987) "The San Salvador Earthquake of 10th October 1986", *Disasters*, Vol. 11, pp. 83-95.
- Borton, J. (1993) "Recent Trends in the International Relief System", *Disasters*, Vol. 17, pp. 187-201.
- Boynton, P. M. (2004) "Selecting, Designing, and Developing your Questionnaire", *British Medical Journal*, BMJ Publishing Group Ltd., Vol. 328, pp. 1312-1315.
- Braithwaite, J. (1985) *To Punish or Persuade: Enforcement of Coal Mine Safety*, Albany: State University of New York Press.
- Braithwaite, J. (2002) *Restorative Justice and Responsive Regulation*, Oxford: Oxford University Press.
- Bravo, M., Rubio-Stipec, M., Woodbury, M.A. & Ribera, J.C. (1990) "The Psychological Sequel of Disaster Stress Prospectively and Retrospectively Evaluated", *American Journal of Community Psychology*, Vol. 18, pp.661-80.
- Brennan, G., & Pettit, P. (2004) *the Economy of Esteem*, Oxford: Oxford University Press.
- Brereton, D. (2003) "Self-Regulation of Environmental and Social Performance in the Australian Mining Industry", *Environmental and Planning Law Journal*, Vol. 20, pp. 261–274.
- Brewer, G. D. (1999) "The Challenges of Interdisciplinarity", *Policy Sciences*, Vol. 32, pp. 327–37.
- Britton, N. R. (1988) "Organised Behaviour in Disaster: a Review Essay", *International Journal of Mass Emergencies and Disasters*, Vol. 6, No. 3, pp. 363-395.
- Britton, N. (1999) "Whither the emergency manager"? *International Journal of Mass Emergencies and Disaster*, Vol. 17, pp.223-36.
- Brooks, A. (1988) "Rethinking Occupational Health and Safety Legislation", *the Journal of Industrial Relations*, Vol. 9, pp. 348-358.
- Brown, B. (1979) *Disaster Preparedness and the United Nations*, New York: Pergamon Press.
- Brown, G. (2008) *The National Security Strategy of the United Kingdom, Security in an interdependent world*, Cabinet Office, Presented to Parliament by the Prime Minister, by Command of Her Majesty.
- Bruce, H. R. (1994) "Listening Authentically: A Heideggerian Perspective on Interpersonal Communication", *Interpretive Approaches to Interpersonal Communication*, Carter, K. & Presnell, M (Eds.) State: University of New York Press.
- Bruneau, M. and Saatçiolu, M. (1993) *Performance of Structures during the 1992 Erzincan Earthquake*, Can. J. Civil Eng., Vol. 20, No. 2, pp. 305–325.
- Bruneau, M., Uang, C.M. and Whittaker, A. (1997) *Ductile Design of Steel Structures*, McGraw Hill, New York.
- Bruneau, M. (2002) "Building damage from the Marmara, Turkey earthquake of August 17,

1999", *Journal of Seismology*, Netherlands: Kluwer Academic Publishers, Vol. 6, pp. 357–377

Bryman, A. (1996) *Introduction to the Philosophy of Social Research*, London: UCL press limited.

Budlender, G. (2003) The Justiciability of the Right to Housing: The South African [Online] [http://www.humanrightsinitiative.org/jc/papers/jc\\_2003/judges\\_papers/budlender\\_housing\\_ms.pdf](http://www.humanrightsinitiative.org/jc/papers/jc_2003/judges_papers/budlender_housing_ms.pdf) (Accessed: 18 November 2009).

Burby, R. J., French, S. P. and Nelson, A. C. (1998) *Plans, code enforcement, and damage reduction: Evidence from the Northridge earthquake*, *Earthquake Spectra* [Online] [http://www.nvc.vt.edu/uap/docs/acnpubs/Misc/acn\\_earthquake1998.pdf](http://www.nvc.vt.edu/uap/docs/acnpubs/Misc/acn_earthquake1998.pdf) (Accessed: 20 November 2009).

Burgess, A. (2009) *An introduction to public risk*, Risk and Regulation Advisory Council, University of Kent [Online] <http://www.berr.gov.uk/files/file53402.pdf> (Access: 16 November 2009).

Burgess, R. (1977) *Self-help housing. A new imperialist strategy?* A critique of the Turner school, *Antipode* 9, pp. 50–60.

Burgess, R. (1978) *Petty commodity housing or dweller control? A critique of John Turner's views on housing policy*, *World Development* 6, pp. 1105–1133.

Burgess, R. G. (1984) *In the Field: An introduction to Field Research*. London: George Allen & Unwin.

Burrell, G. & Morgan, G. (1979) *Sociological Paradigms and Organisational Analysis*, London: Heinemann Education Books, Ltd.

Burton, I., Kates, R. W. & White, G. F. (1993) *The Environment as Hazard* (2<sup>nd</sup> Edn.) New York: 10012.

Butcher, T. (2003) "Modernising Civil Services: an Era of Reform in Butcher", in Butcher, T. & Massey, A. (Eds.) *Modernising Civil Services*, Cheltenham: Edward Elgar.

Cabinet Office (2005) *Central Government Arrangements for Responding to an Emergency: Concept of Operations (ConOps)* [Online] <http://www.ukresilience.gov.uk/media/ukresilience/assets/conops.pdf> (Accessed: 11 August 2008).

Campagnoli, F. (2007) JUB/Uplink in Post-Tsunami Aceh: Achievements, Potentials, Limitations, *UN-Habitat/University of Syiah Kuala, 2005-2007, Monitoring of Aceh Housing and Settlement Reconstruction*.

Campbell, J. R. (1990) "Disaster and Development in Historical Context: Tropical Cyclone Responses in the Banks Islands, Northern Vanuatu", *International Journal of Mass Emergencies and Disasters*, Vol. 8, pp.401–24.

Canter, W. N. (1989) "Disaster Response in Developing Countries", *Disaster Management*, Vol. 1.

Castka, P., Bamber, C. J., Sharp, J. M. & Belohoubek, P. (2001) "Factors Affecting Successful Implementation of High Performance Teams", *Team Performance Management*, Vol. 7, No. 7/8, pp. 123-134.

Centre on Housing Rights and Evictions (COHRE) (2000) *Sources No.4: Legal Resources for Housing Rights*, Scott Leckie.

Centre on Housing Rights and Evictions (COHRE) (2005) *Statement on the Indian Ocean Tsunami and Housing Rights* [Online] [www.cohre.org/store/attachments/COHRE\\_TsunamiStatement.doc](http://www.cohre.org/store/attachments/COHRE_TsunamiStatement.doc) (Accessed: 20 October 2007).

Cernea, M. M. & McDowell, C. (2000) *Risks and reconstruction: experiences of resettlers and refugees*, Washington: The International Bank for Reconstruction and Development.

- Cherry, A. (2000) *A Research Primer for the Helping Professions: Methods, Statistics, and Writing*, Berkeley, California: Wadsworth/Thomson.
- Chong, J. K. & Nyaw, M. (2002) "Are Hong Kong Companies Prepared for Crisis"? *Journal Disaster Prevention and Management*, Vol. 11, No. 1, pp. 12-17.
- Chalinder, A. (1998) "Temporary Human Settlement Planning for Displaced Populations in Emergencies", *Good Practice Review number 6*, London: ODI.
- Chemtob, C. M., Tomas, S., Law, W. and Cremniter, D. (1997) *Postdisaster psychosocial intervention: a field study of the impact of debriefing on psychological distress*, American Journal of Psychiatry 1997, American Psychiatric Assoc., Vol. 54, pp. 415-417.
- Christians, C. (2000) "Ethics and Politics in Qualitative Research", Pp. 133-155 in Denzin, N. K. & Lincoln, S. (Eds.) *Handbook of Qualitative Research*, 2/e, Thousand Oaks, CA: Sage.
- Christoplos, I. (2006) *Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS)*, Working Paper: Risk Reduction Indicators, ProVenton Consortium.
- Church, A. H. (1998) "from Both Sides Now: the Power of Teamwork – Fact or Fiction"? *Team Performance Management*, Vol. 4, No. 2, pp. 42-52.
- Cigler, B. A. (1987) *Emergency Management and Public Administration*, In Charles, M. T. & Kim, J. K.C. (Eds.) *Crisis Management: A Casebook* Springfield, MO: Thomas, pp. 5-19.
- Cigler, B. A. (1988) *Current Policy Issues in Mitigation, in Managing Disaster: Strategies and Policy Perspectives* (Ed.) Comfort, L. K., Durham: Duke University Press.
- Clapton, R., Granville, S., Staniforth, J. & Campbell, D. (2006) *Research on Attitudes to Regulation and Compliance within the Scottish Seafood Industry*, the Scottish Executive Environment and Rural Affairs Department.
- Clay, E. (2004) *The Indian Ocean Tsunami: What are the Economic Consequences?* [Online] <http://www.odi.org.uk/tsunami.html> (Accessed: 2 Jun 2007).
- Clifford, R. A. (1956) *The Rio Grande Flood: A Comparative Study of Border Communities*, Disaster Study no. 17, Washington DC.: National Research Council, National Academy of Science.
- Clough, P & Lindsay, G. (1991) *Integration and the Support Service*, Changing Roles in Special Education, UK: NFER-NELSON.
- Cocklin, C. & Wall, M. (1997) "Contested Rural Futures: New Zealand's East Coast Forestry Project", *Journal of Rural Studies*, Vol. 13, No. 2, pp. 149-162.
- Cohen, L., Manion, L., & Morrison, K. (2000) *Research Methods in Education* (5<sup>th</sup> Edn.) London: Routledge Falmer.
- Coleman, J. (1985) "Responsibility in Corporate Action: a Sociologist's View", in Hopt, K. & Teubner, G. (Eds.) *Corporate Governance and Directors' Liabilities: Legal, Economic and Sociological Analyses on Corporate Social Responsibility*, Berlin: Walter de Gruyter: pp. 69-91.
- Colin, C. and Kunreuther, H. (1989) "Decision Process for Low Probability Events: Policy Implications", *Journal of Policy Analysis and Management*, Vol. 8, pp. 565-592.
- Comerio, M. C., Landis, J. D., Firpo, C. J. & Monzon, J. P. (1996) "Residential Earthquake Recovery: Improving California's Post-Disaster Rebuilding Policies and Programmes", *California Policy Seminar*, Vol. 8, No. 7, pp. 11.

- Comfort, L. K. & Kapucu, N. (2006) "Inter-Organisational Coordination in Extreme Events: The World Trade Center attacks, September 11, 2001", *Natural Hazards* Springer Netherland, Vol. 39, pp. 2.
- Common, R. (2003) "Malaysia – a Case of Business as Usual"? in Cheung, A.B.L. & Scott, I. (Eds.) *Governance and Public Sector Reform in Asia*, New York, NY: Routledge Curzon, pp. 163-85.
- Commonwealth Secretariat (2004) *A Profile of Public Service of Malaysia*, Commonwealth Secretariat, London.
- Committee on Economic, Social and Cultural Rights (CESCR) (1997) *The Right to Adequate Housing*, (Art.11.1): Forced Evictions [Online] [http://www.unhchr.ch/tbs/doc.nsf/\(symbol\)/CESCR](http://www.unhchr.ch/tbs/doc.nsf/(symbol)/CESCR) (Accessed: 23 February 2007).
- Conway, T., Moser, C., Norton, A. & Farrington, J. (2002) "Rights and Livelihoods Approaches: Exploring Policy Dimensions", *Overseas Development Institute*, No. 78, ISSN: 1356-9228.
- Cooper, D.R. & Schindler, P.S. (2001) *Business Research, Methods* (7<sup>th</sup> Edn.) Boston: McGraw-Hill.
- Corbacioglu, S. & Kapucu, N. (2006) "Organisational Learning and Self-adaptation in Dynamic Disaster Environments", *Disasters*, Vol. 30, No. 2, pp. 212-233.
- Corsellis, T. (1996) *UNHCR Guidelines Development: Shelter and Physical Planning Sector*, unpublished Consultancy Report Submitted to UNHCR, Geneva.
- Corsellis, T. & Vitale, A. (2005) *Transitional Settlement Displaced Populations* [Online] Available at: [www.shelterproject.org](http://www.shelterproject.org) (Accessed at: 1 Feb 2007).
- Corsellis, T. & Vitale, A. (2008) *Transitional Settlement and Reconstruction After Natural Disaster*, Shelter Centre, United Nations.
- Cosmides, L. & Tooby, J. (1999) "Cognitive Adaptations for Social Exchange", In *The Adapted Mind, Evolutionary Psychology and the Generation of Culture* (Eds.) Jerome, H., Cosmides, L., & Tooby, J., New York: Oxford University Press, pp. 163-228.
- Cox, J. C. (2004) "How to Identify Trust and Reciprocity", *Games and Economic Behaviour*, 46: 260-81.
- Cox, J. C., & Deck, C. (2005) "On the Nature of Reciprocal Motives", *Economic Inquiry*, Vol. 43, No. 3, pp. 623-635.
- Crawford, K. (2002) *Existing Guidelines Supporting the Shelter Sector* [Online] Available at: [www.shelterproject.org](http://www.shelterproject.org) (Accessed: 28 Jan 2007).
- Creswell, J. (1998) *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. London, New Delhi: Thousand Oaks, Sage Publications.
- Crisis and Disaster Management Unit (CDM) Division of National Security (2005) *Malaysia Country Report*, Asia Disaster Reduction Centre [Online] at <http://www.adrc.or.jp/countryreport/MYS/2005/english.pdf> (Accessed: 23 January 2007).
- Cuny, F. C. (1983) *Disasters and Development*. New York: Oxford University Press.
- Czaja, R. (2005) *Designing Surveys, A guide to Decisions and Procedures*, CA, US: Pine Forge Press.
- D'Arcy, E. & Keogh, G. (1996) "Property Market Analysis: an Institutional Approach", *International Real Estate Conference*, the University of Connecticut /AREUEA, Orlando, Florida, pp. 23-25.
- Da Silva, R. R. (1980) *La Participation De L'utilisateur Dans Le Processus De Construction*, unpublished Thesis, Université de Montréal [Online] <ftp://ftp.shef.ac.uk/pub/uni/academic> (Accessed: 11 November 2007).

- Daft, R. L. (1983) *Learning the Craft of Organisational Research*, Academy of Management Review.
- Daniels, N. (2003) "Chevron v Echazabal: Protection, Opportunity and Paternalism", *American Journal of Public Health*, Vol. 93, No. 4, pp. 545–548.
- Darlington, R. B., Sharon, W. & Herbert, W. (1973) "Canonical Variate Analysis and Related Techniques", *Review of Educational Research*, pp. 453-454.
- Davis, D. D., & Holt, C.A. (1993) *Experimental Economics*, Princeton, NJ: Princeton University Press.
- Davis, I. (1978) *Shelter after Disaster*, Headington, Oxford, England: Oxford Polytechnic Press, pp. 92.
- Davis, I. (1981) *Disasters and the Small Dwelling*, Oxford: Pergamon Press.
- Davis, I. (1987) "Developments in the Provision of Culturally Sensitive Housing within Seismic Areas (1981-1986)", *Proceedings of Middle East and Mediterranean Regional Conference on Earthen and Low-Strength Masonry Buildings in Seismic Areas*, Ankara: Middle East Technical University, pp. 107:115.
- Davis, J. & Lambert, R. (Eds.) (2002) *Engineering in Emergencies: A Practical Guide for Relief Workers* (2<sup>nd</sup> Edn.) RedR /ITDG, London.
- Davis, I. (2007) "Learning from Disaster Recovery Guidance for Decision Makers (Consultation Version)", *International Recovery Platform*, United Nations International Strategy for Disaster Reduction.
- Dawes, S. & Préfontaine, L. (2003) "Understanding New Models of Collaboration for Delivering Government Services", *Communications of the ACM*, Vol. 46, No. 1, pp. 40-42.
- Dawes, S., Cresswell, A. M., Pardo, T. A. & Thompson, F. (2004a) "Modeling the Social and Technical Processes of Interorganisational Information Integration", *ACM International Conference Proceeding, Series*, Vol. 262, pp. 1-2.
- Dawes, S., Fletcher, P. D. & Gant, J. (2004b) "New Models of Collaboration for Delivering Government Services", *Proceedings of the 2004 Annual National Conference on Digital Government Research*, 1-2, Seattle, WA.
- Dawes, S., Cresswell, A. M. & Cahan, B. B. (2004c) "Learning From Crisis. Lessons in Human and Information Infrastructure from the World Trade Center Response", *Social Science Computer Review*, Vol. 22, No. 1, pp. 52-66.
- De Cort, R. (1994) "The Development of UK and European Major Hazards Legislation and Review of the Seveso Directive the Implications for Industry", *Journal of Disaster Prevention and Management*, Vol. 3, No. 2, pp. 8-14.
- De Soto, H. (2000) *The Mystery of Capital, Why Capitalism Triumphs in the West and Fails Everywhere Else*, New York: Basic Books.
- De Vos, P. (2001) *Grootboom, the Right of Access to Housing and Substantive Equality as Contextual Fairness*, South African Journal on Human Rights, Cambridge University Press.
- Deaux, K., Dane, F. & Wrightsman, L. (1993) *Social Psychology in the 90s*, Pacific Grove, California, USA: Brooks/Cole.
- Deegan, C. & Gordon, B. (1996) "A Study of the Environmental Disclosure Policies of Australian Corporations", *Accounting & Business Research*, Vol. 26, No. 3, pp. 187–199.
- Deily, M. E. & Gray, W. B. (1991) "Enforcement of Pollution Regulations in a Declining Industry", *Journal of Environmental Economics and Management*, Elsevier, Vol. 21, No. 3, pp. 260-274.

- Delamont, S. (1995) "Teachers as Artists", in Anderson, L.W. (Ed.) *International Encyclopaedia of Teaching and Teacher Education*, London: Pergamon Press.
- Denis, H. (1995) "Scientists and Disaster Management", *Disaster Prevention and Management*, Vol. 4, pp. 14-19.
- Denzin, N. K. (1970) *The Research Act: A Theoretical Introduction to Sociological Methods*, Englewood Cliffs, NJ: Prentice-Hall.
- Denzin, N. K. & Yvonna, S. L. (Eds.) (1994) *Handbook of Qualitative Research*, Thousand Oaks, CA: Sage.
- Denzin, N. K. & Lincoln, Y.S. (Eds.) (1996) *Handbook of Qualitative Research*, USA: SAGE Publications.
- Denzin, N. & Yvonna, S. L. (Eds.) (1998) *Collecting and Interpreting Qualitative Materials*, Thousand Oaks: Sage.
- Department for International Development (DFID) - Shelter Project (2008) *Preliminary Draft Shelter Standards for Comment by the Manufacturing Community*.
- Department for International Development (DFID) (2003) *Glossary of Development Terms and Abbreviations*, DFID, London [Online] [www.dfid.gov.uk/aboutdfid/files/glossary\\_r.htm](http://www.dfid.gov.uk/aboutdfid/files/glossary_r.htm) (Accessed: 12 December 2006).
- Dey, I. (1995) "Reducing Fragmentation in Qualitative Research", In Kelle, U. (Ed.) *Computer-Aided Qualitative Data Analysis: Theory, methods and practice*, London: Sage.
- Di Mento J. F. (1986) *Environmental Law and American Business: Dilemmas of Compliance*, New York: Plenum Press.
- Dietz, T., Ostrom, E., & Stern, P. C. (2003) "The Struggle to Govern the Common", *Science*, Vol. 302, pp. 1907-1912.
- Doganguna, A. , Tulukb, O. I., Livaogluc, R. and Acara, R. (2005) *Traditional wooden buildings and their damages during earthquakes in Turkey*, Engineering Failure Analysis, Elsevier Ltd. 13 (6) 981-996 [Online] <http://www.sciencedirect.com/science> (Accesses: 22.11.2009).
- Dolšak & Ostrom, E. (2003) *the Commons in the New Millennium: Challenges and Adaptation*, Cambridge, MA: MIT Press.
- Dorris V. K. (1998) *Living and working within the code*, Architectural Record October, pp. 171-174
- Drabek, T. E. & Haas, J. E. (1969) 'Laboratory Simulation of Organisational Stress', *American Sociological Review*, Vol. 34, pp. 223-38.
- Drabek, T. (1986) *Human System Responses to Disasters: An Inventory of Sociological Findings*, New York: Springer-Verlag.
- Drabek, T. (1987) "Emergent structures", in Dynes, R., De Marchi, B., Pelanda, C. (Eds.), *Sociology of Disasters: Contribution of Sociology to Disaster Research*, Franco Angeli, Milan, pp.190-259.
- Drabek, T. & Gerard, H. (1991) *Emergency Management: Principles and Practice for Local Government*, Washington, D.C.: ICMA.
- Drabek, T. (1999) "Revisiting the Disaster Encyclopedia", *International Journal of Mass Emergencies and Disaster*, Vol. 7, pp. 237-57.
- Drabek, T. E. (2000) "Pattern Differences in Disaster-Induced Employee Evacuations", *International Journal of Mass Emergencies and Disasters*, Vol. 18, No. 2, pp. 289-315.

- Drabek, T. (2002) *Following Some Dreams, Recognising Opportunities, Posing Interesting Question, and Implementing Alternative Methods*, US: Xlibris Corp.
- Drabek, T. E. & McEntire, D. A. (2003) "Emergent Phenomena and the Sociology of Disaster: Lessons, Trends and Opportunities from the Research Literature", *Disaster Prevention and Management*, Vol. 12, pp. 97-112.
- Drucker, P. (1992) *Managing for the Future*, Oxford: Butterworth-Heinemann.
- Duarte, D. L. & Snyder, N. T. (2001) *Mastering Virtual Teams* (2<sup>nd</sup> Edn.) San Francisco: Jossey-Bass, CA.
- Dunsire, A. (1978) *Implementation in a Bureaucracy*, Oxford: Martin Robertson.
- Durning, A. B. (1989) *Poverty and the Environment: Reversing the Downward Spiral*, Worldwatch Paper 92. Worldwatch, New York.
- Dynes, R. R. (1970) *Organised Behaviour in Disaster*, Lexington, MA: D.C. Heath.
- Dynes, R. R. & Quarantelli, E. L. (1977) "Organisational Communications and Decision Making in Crises", University of Delaware Disaster Research Center, *Research Notes/Report*, 17.
- Dynes, R. R. (1978) "Interorganizational Relations in Communities under Stress", in Quarantelli, E.L. (Ed.) *Disasters, Theory and Research*, Sage Publications, Newbury Park, CA, pp.50-64.
- Dynes, R. R. & Quarantelli, E. L. (1980) "Helping Behaviour in Large Scale Disasters", Pp. 339- 354 in Smith, D. H. & Macaulay, J. (Eds.) *Participation in Social and Political Activities*. San Francisco, CA: Jossey-Bass.
- Dynes, R. R. (1983) "Problems in Emergency Planning", *Energy*, Vol. 8, pp. 633-660.
- Dynes, R. R. (1993) "Disaster reduction: The importance of Adequate Assumptions about Social Organisation", *Sociological Spectrum*, Vol. 13, pp. 175-192.
- Dynes, R. R. (1999) "Comments on Drabek and other Encyclopedists", *International Journal of Mass Emergencies and Disasters*, Vol. 17, pp.211-16.
- Eade, D. & Williams, S. (1995) *The Oxfam Handbook of Development and Relief*, Oxfam International, Vol 2.
- Eadie, C., Emmer, R., Esnard, A. M., Michaels, S., Monday, J., Philipsborn, C., Phillips, B. & Salveson, D. (2001) *Holistic Disaster Recovery: Ideas for Building Local Sustainability after a Natural Disaster* [Online] Available at: [http://www.colorado.edu/hazards/holistic\\_recovery/](http://www.colorado.edu/hazards/holistic_recovery/) (Accessed at: 3 Feb 2007).
- Earth Summit (1992) *Agenda 21: The United Nations Programme of Action from Rio*, UN Department of Economic and Social Affairs, Division for Sustainable Development [Online] [http://www.un.org/esa/dsd/agenda21/res\\_agenda21\\_00.shtml](http://www.un.org/esa/dsd/agenda21/res_agenda21_00.shtml) (Accessed: 21 December 2009).
- Earth Summit (2002) *Report of the World Summit on Sustainable Development*, Johannesburg, South Africa [Online] <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N02/636/93/PDF/N0263693> (Accessed: 11 Decemder 2009).
- Economic Planning Unit, (EPU) (2006) *The Ninth Malaysia Plan, 2005-2010*, EPU: Prime Minister's Department, EPU, Prime Minister's Department, Putrajaya [Online] [www.epu.jpm.my/rm9/RMke9.htm](http://www.epu.jpm.my/rm9/RMke9.htm) (Accessed: 21 July 2007).
- El-Masari, Souheil (1997) *Learning from the People: A fieldwork Approach in War-Damaged Villages in Lebanon, Reconstruction after Disaster: Issues and Practices* (Ed.) Awoyona, A., Aldershot: Ashgate, pp. 57-72.

- Ellickson, R. C. (1987) "A Critique of Economic and Sociological Theories of Social Control", *Journal of Legal Studies*, Vol. 26, pp 67–99.
- Elsinga, M. (2005) "Homeownership and Housing Satisfaction", *Journal of Housing and the Built Environment, Earth and Environmental Science*, Vol. 20, No. 4, pp. 401-424.
- Erikson, Kai T. (1976) *Everything in Its Path*, New York: Simon and Schuster.
- Erlandson, D. A. & Erlandson, E. L. (1993) *Doing Naturalistic Inquiry: A Guide to Methods*. Validity, Triangulation, Trustworthiness, Truth, Credibility, Transferability, Dependability and Confirmability: 2. Newbury Park, CA: Sage.
- Esman, M.J. (1972) *Administration and Development in Malaysia*, Ithaca: Cornell University Press, pp. 140-144.
- Eyre, A. (2006) "Literature and Best Practice Review and Assessment: Identifying People's Needs in Humanitarian Response", *Report commissioned by the Department for Culture, Media and Sport* [Online] Available at: [www.culture.gov.uk](http://www.culture.gov.uk) (Accessed: 7 Feb 2007).
- Fairman, R. (1999) "A Commentary on the Evolution of Environmental Health Risk Management: A US Perspective", *Journal of Risk Research*, Vol. 2, No. 2, pp. 101– 15.
- Fairman, R., Yapp, C. (2005) "Enforced Self Regulation, Prescription and Conception of Compliance within Small Businesses: the Impact of Enforcement", *Law and Policy Journal*, Vol. 27, No. 4, pp. 491-519.
- Fakhru'l-Razi, A. (2001) Country Report: Evolution of Emergency Management in Malaysia, *Journal of Contingency and Crisis Management*, Vol. 2, No. 9.
- Faupel, C. (1987) "Human Ecology: Contributions to Research and Policy Formation", in *Sociology of Disasters*. Dynes, R. R, Marchi, B. D., Pelanda, C. (Eds.) Milano, Italy: Granco Angeli Libri.
- Fedorowicz, J., Gogan, J. L. & Williams, C.B. (2007) "a Collaborative Network for First Responders: Lessons from the CapWIN Case", *Government Information Quarterly*, Vol. 24, No. 4, pp. 785-807.
- Ferrier, J. F. (1854) *Institutes of Metaphysic: The Theory of Knowing and Being* (Edinburgh and London: W. Blackwood and Sons.
- Fink, A. (1995) *the Survey Handbook*, London: SAGE Publications.
- Fishbein, M. & Ajzen, R. (1975) *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Reading, Mass: Addison Wesley.
- Fishbein, M. (1980) "Attitude and the Prediction of Behaviour", in Fishbein, F. (Ed.) *Readings in Attitude Theory and Measurement*, New York: Wiley, pp. 477-492.
- Fontana, A. & Frey, J. H. (2000) "From Structured Questions to Negotiated Text", in Denzin, N. K. & Lincoln, Y. S. (Eds.) *Handbook of qualitative research* (2<sup>nd</sup> Edn.), Thousand Oaks: Sage Publications, pp. 645-672.
- Foong, S.L., Shiozaki, Y. & Horita, Y. (2006) "Evaluation of the Reconstruction Plans for Tsunami Disaster victims in Malaysia", *Journal of Asia Architecture and Building Engineering*/ November, Vol. 300.
- Ford, J., Richard, M. and Talbutt, P.. (1996) *Sorokin and Civilisation: A Centennial Assessment*, Transaction Publishers: New Jersey.
- Forrest, T. (1978) "Group Emergence in Disasters", in Quarantelli, E.L. (Ed.) *Disasters: Theory and Research*, Sage, Beverly Hills, CA, pp.105-25.



- FrancaViglia, R. V. (1978) "Xenia Rebuilds - Effects of Pre-Disaster Conditioning on Post-Disaster Redevelopment", *Journal of the American Institute of Planners*, Vol. 44, No.1, pp. 13-24.
- Franzoi, S. L (1996) *Social Psychology*, U.S.A: Brown and Benchmark Publisher.
- Fritz, C.E. & Marks, E. S. (1954a) "The NORC Studies of Human Behaviour in Disaster", *Journal of Social Issues*, Vol. 10, pp. 26-41.
- Fritz, C. E. Marks, E. S. (1954b) "Human Reactions in Disaster Situations", Unpublished Report, *National Opinion Research Center*, University of Chicago.
- Fritz, C. E. & Mathewson, J. H. (1957) *Convergence Behaviour in Disasters: a Problem in Social Control*. Disaster Study Number 9, Washington: National Academy of Sciences National Research Council.
- Fritz, C. E. (1961) Disaster (Ed.) *Contemporary Social Problems*, In Merton, R. K. & Nisbet, R. A., New York: Harcourt.
- Fuller, L. L. (1969) "Human Interaction and the Law", *Principles of Social Order*, American Journal of Jurisprudence, pp.211-246.
- Fung, A, O'Rourke, D. & Sabel, C. (2001) *Realising Labour Standards*, Boston Review, Vol. 26, pp. 1-24.
- Fyfe, T. (2004) "Alternative Service Delivery- Responding to Global Pressures", *International Review of Administrative Sciences*, Vol. 70, No. 4, pp. 637-44.
- Galea, S., Brewin, C. R., Gruber, M., Jones, R. T., King, D. W., King, L. A., McNally, R. J., Ursano, R. J., Petukhova, M. & Kessler, R. C. (2007) "Exposure to Hurricane-Related Stressors and Mental Illness", *After Hurricane Katrina Arch Gen Psychiatry*, Vol. 64, No. 12, pp. 1427-1434.
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996) *Educational Research: An Introduction* (6<sup>th</sup> Edn.) White Plains, NY: Longman.
- Geertz, C. (1973) *the Interpretation of Cultures*, New York: Basic Books.
- Geis, G. (1991) "White Collar Crime: What is It"? *Current Issues in Criminal Justice*, Vol. 3, pp. 9-24.
- Gelderman, C. J., Ghijsen, P. W. T. & Brugman, M. J. (2006) "Public Procurement and EU Tendering Directives – Explaining Non-Compliance", *The International Journal of Public Sector Management*, Vol. 7, No. 19, pp. 702-714.
- Genn, H. (1993) "Business Responses to the Regulation of Health and Safety in England" *Law & Policy*, Vol. 15, No. 219.
- Gibbons, F. X., Carver, C. S., Scheier, M. F. & Hormuth, S. E. (1979) "Self-Focused Attention and the Placebo effect: Fooling Some of the People Some of the Time", *Journal of Experimental Social Psychology*, Vol. 15, pp. 263-274.
- Giddens, A. (1984) *the Constitution of Society: Outline of a Theory of Structuration*, Berkeley and Los Angeles: University of California Press.
- Gilbert, A. (1997) "On Subsidies and Home-Ownership: Colombian Housing Policy During the 1990s", *Third World Planning Review*, Vol. 19, No. 1, pp. 51-67.
- Gillespie, M. (1995) *Television, Ethnicity and Cultural Change*, London & New York: Routledge.
- Giorgi, A. (1985) "A Psychological Phenomenological Method", In Giorgi, A. (Ed.) *Phenomenology and Psychological Research*, Pittsburgh: Duquesne University Press.

- Goddens, A. (1990) *The Consequences of Modernity*, Stanford, California: Stanford University Press.
- Godschalk, D. R. & Brower, D. J. (1985) "Mitigation Strategies and Integrated Emergency Management", *Public Administration Review*, Vol. 45 (Special Issue), pp. 64-71.
- Godschalk, D. R. (1991) "Disaster Mitigation and Hazard Management, in Emergency management", *Principles and Practice for Local Government*, (Eds.) Drabek, T. E. & Hoetmer, G. J., Washington, DC: International City Management Association.
- Godschalk, D. R., Beatley, T., Berke, P, Brower, D. J. & Kaiser, E. J (1999) *Natural Hazard Mitigation: Recasting Disaster Policy and Planning*, California: Island Press.
- Golden, M. M. (2000) *What Motivates Bureaucrats? Political and administration during the Reagan Years*, New York: Columbia University Press.
- Gopalakrishnan, C. and Okada, N. (2007) "Designing New Institutions for Implementing Integrated Disaster Risk Management: Key Elements and Future Directions", *Disaster Prevention and Management*, Overseas Development Institute, Vol. 31, No. 4, Pages 353 – 372.
- Gorsuch, R. L. (1983) *Factor Analysis*. Hillsdale, NJ: Erlbaum.
- Gough, K. V. (1998) "House for Sale? The Self-help Housing Market in Pereira, Colombia", *Housing Studies*, Vol. 13, pp. 149-60.
- Graaskamp J. A. (1992) "The Institutional Valuation Constraints", *Journal of Property Valuation and Investment*, Vol 10, No. 3, pp 598 – 603.
- Gray, W. B. & Scholz, J. T. (1993) "Does Regulatory Enforcement Work? A Panel Analysis of OSHA Enforcement", *Law and Society Review*, Vol. 27, No. 177.
- Gray, W. B. & Deily, M. E. (1996) "Compliance and Enforcement: Air Pollution Regulation in the U.S. Steel Industry", *Journal of Environmental Economics and Management*, Elsevier, Vol. 31, No. 1, pp. 96-111.
- Gray, R. Owen, D. & Adams, C. (1996b) *Accounting and Accountability: Changes and Challenges in Social and Environmental Reporting*, London: Prentice Hall.
- Gray, P. & t'Hart, P. (1998) *Public Policy Disasters in Western Europe*, Routledge.
- Green, S. (1977) *International Disaster Relief: Towards a Responsive System*, New York, NY: McGraw-Hill.
- Grover, R., & Fowler, S.G. (1993) *Recent Trends in School Library Media Research*, School Library Media Quarterly, Vol. 21, No. 4, pp. 241-47.
- Guarnizo, C. C. (1993) "Integrating Disaster and Development Assistance after Natural Disasters: NGO Response in the Third World", *International Journal of Mass Emergencies and Disasters*, Vol. 11, pp.111-22.
- Guba, E. G. & Lincoln, Y. S. (1994) "Competing Paradigms in Qualitative Research", in Denzin, N. K. & Lincoln, Y. S. (Eds.) *Handbook of Qualitative Research*, Thousand Oaks, CA: Sage, pp. 105-117.
- Gue, S. S. & Tan, Y. C. (2004) "Guidelines for Development on Hill-Sites (Chapter 7)", in Huat, B. B. K., Gue, S. S. & Ali, F. (Eds.) *Tropical Residual Soils Engineering*, London: Taylor & Francis Group, pp 103-120.
- Gulhan, D. and Guney, I. O. (2000) *The behaviour of traditional building systems against earthquake and its comparison to reinforced concrete frame systems; experiences of Marmara Earthquake damage assessment studies in Kocaeli and Sakarya*, In: Proceedings for earthquake-safe: lessons to be learned from traditional construction Istanbul, Turkey.

- Gunawan, T. (1999) "Spatial Change and Social Disorder, the Loss of Sacred Place after the Reconstruction of the Lio village in Flores, Indonesia", *Environments by Design*, Vol. 3, No. 1, pp. 53-71.
- Gunningham, N., & Grabosky, P. (1998) *Smart Regulation: Designing Environmental Policy*, Oxford, UK: Oxford University Press.
- Gunningham, N. & Johnstone, R. (1999a) *Regulating Workplace Safety: Systems and Sanctions*, Oxford: Oxford University Press.
- Gunningham, N. & Sinclair, D. (1999b) "Environment Management Systems, Regulation and the Pulp and Paper Industry: ISO 14001", in Practice, *Environment and Planning Law Journal*, Vol. 16, No. 5.
- Haas, J. E., Robert, K. & Bowden, M. J. (1977) *Reconstruction Following Disaster*, Cambridge, Massachusetts, and London, England: The MIT Press.
- Hackman, J. R., & Lawler, E. E. (1971) "Employee Reactions to Job Characteristics", *Journal of Applied Psychology*, Vol.55, pp. 259-286.
- Haddow, G. D. & Jane A. B. (2004) *Introduction to Emergency Management Amsterdam*, Burlington, MA: Elsevier Butterworth-Heinemman.
- Haddow, G. D., Coppola, D., Ergin, E. W. L. & Yeletaysi, S. (2006) *Introduction to Homeland Security* (2<sup>nd</sup> Edn.) Burlington, MA: Elsevier Butterworth-Heinemman.
- Haines, F. (2002) *Current Issues In Regulation: Enforcement and Compliance Conference convened by the Australian Institute of Criminology in Conjunction with the Regulatory Institutions Network, RSSS, Australian National University and the Division of Business and Enterprise, University of South Australia and Held in Melbourne*.
- Haines, F. & Sutton, A. (2003) "the Engineer's Dilemma: A Sociological Perspective on the Juridification of Regulation", *Crime, Law and Social Change*, Vol. 39, No. 1, pp 1-22.
- Hall, K., & Savery, L. K. (1986) "Tight Rein, More Stress", *Harvard Business Review*, Vol. 23, No. 10, pp. 1162-1164.
- Hammersley, M. (1987) "Some Notes on the Terms 'Validity' and 'Reliability' In the British", *Educational Research Journal*, Vol. 13, No. 1, pp.73-81.
- Hammersley, M. (1989) *the Dilemma of Qualitative Method*, London: Routledge.
- Hamnet, C. (2003) "Contemporary Human Geography: Fiddling while Rome Burns?" *Political Geography*, Vol. 34, pp. 1-3.
- Hancher, L & Moran, M. (1998) "Organising Regulatory Space", in Baldwin, R., Scott, C & Hood, C. (Eds.) *A Reader in Regulation*, Oxford, Oxford University Press, pp 148-173.
- Harms-Ringdahl, L & Ohlsson, K. (1995) "Approaches to Accident Prevention: A comparative Study of Eleven Swedish Authorities", *Safety Science*, Vol. 21, pp. 51-63.
- Harrauld, J.R. (2006) "Agility and Discipline: Critical Success Factors for Disaster Response", *the ANNALS of the American Academy of Political and Social Science*.
- Harré, R. (2002) "Tilting at windmills: Sociological commonplaces and miscellaneous ontological fallacies", *European Journal of Social Theory*, Vol. 5, No. 1, pp. 143-148.
- Harris, P. R. & Harris, K. G. (1996) "Managing Effectively through Teams", *Team Performance Management*, Vol. 2, No. 3, pp. 23-36.

- Harris, R. (2003) "a Double Irony: the Originality and Influence of John F.C. Turner", *Habitat International*, Vol. 27, pp. 245-269.
- Harvey, J. (2002) "an Analysis of Safety Culture Attitudes in a Highly Regulated Environment", *Work and stress (Work stress,)*, Vol. 16, No. 1, pp. 18-36.
- Hashim, M. S. (1976) *An Introduction to the Constitution of Malaysia*, Kuala Lumpur: Government Printers.
- Hawkins, K (1984) *Environment and Enforcement: Regulation and the Social Definition of Pollution*, Oxford: Clarendon Press.
- Healey, P. (1992) "an Institutional Model of the Development Process", *Journal of Property Research*, Vol. 9, pp 33-44.
- Heide, E. A. D. (1989) *Disaster Response: Principles of Preparation and Coordination*, CV Mosby St. Louis, Atlanta.
- Hengjian, L., Kohiyama, M., Horie, K., Maki, N., Hayashi, H. and Tanaka, S. (2003) "Building damage and casualties after an earthquake", *Natural Hazards*, Vol. 29, pp. 387-403.
- Henstra, D. & McBean, G. A. (2005) "Canadian Disaster Management Policy: Moving Toward a Paradigm Shift"? *Canadian Public Policy*, Vol. 31, pp. 303-318.
- Herman, R. E. (1982) *Disaster Planning for Local Government*, New York: Universe Books
- Herriott, R. E. (1980) *Federal Initiatives and Rural School Improvement: Findings from the Experimental Schools Programme*, Cambridge, MA: Abt Associates.
- Hewitt, W. E. (1998) "The Role of International Municipal Cooperation in Housing the Developing World's Urban Poor: The Toronto-Sao Paulo example", *Habitat International*, Vol. 22, No. 4, pp. 411-425.
- Hilmer, F. (Chair) (1993) *National Competition Policy: Report by the Independent Committee of Inquiry*, Canberra: AGPS.
- Hirschheim, R. (1985) "Information System Epistemology: An Historical Perspective", in Mumford, E. *et al.* (Eds.) *Research Methods in Information Systems: Proceedings of the Manchester Business School Colloquium*, Manchester: Manchester Business School, pp.13-36.
- Hjern, B. & Hull, C. (1982) "Implementation Research as Empirical Constitutionalism", *European Journal of Political Research*, No. 10, pp. 105-115.
- Ho, K. L. (2002) "Reinventing the Bureaucracy? Malaysia's New Administrative Reform Initiatives", *The Journal of Comparative Asia Development*, Vol. 1, No. 1, pp. 87-104.
- Hoetmer, G. J. (1983a) *Emergency Management*, Baseline Data Reports 15 (April), Washington: International City Management Association.
- Hoetmer, G. J. (1983b) *Emergency Management: Individual and County Data*, Baseline Data Reports 15 (August), Washington: International City Management Association.
- Hogg, A. B. (1988) "Worldwide Response to Disaster", *Disaster Management*, Vol. 1, pp.41-5.
- Hogg, M. & Vaughn, G. (1998) *Social Psychology*, London: Prentice-Hall.
- Hogwood, B. W. & Peters, B. G. (1985) *the Pathology of Public Policy*, USA: Oxford University Press.
- Holstein, J. (2003) *Inside Interviewing, New Lenses, New Concern*, London: Sage Publication.

- Holt, R., Rowe, D. (2000) "Total Quality, Public Management and Critical Leadership in Civil Construction Projects", *International Journal of Quality and Reliability Management*, Vol. 17, No.4/5, pp.541-53.
- Hood, C. (1976) *The Limits of Administration*, New York: John Wiley.
- Hopkins, A. (1995) *Making Safety Work: Getting Management Commitment to Occupational Health and Safety*, Sydney: Allen & Unwin.
- Hopkins, A. (1999) *Managing Major Hazards: the Lessons of the Moura mine Disaster*, St Leonards NSW: Allen & Unwin.
- Horan, T. A., Marich, M. & Schooley, B. (2006) "Time-Critical Information Services, Analysis and Workshop Findings on Technology, Organisational, and Policy Dimensions to Emergency Response and Related E-Governmental Services", *ACM International Conference Proceeding Series*. Vol. 151, pp. 115-123.
- Houghton, R. (2006) Tsunami Emergency: Lessons from Previous Natural Disasters [Online] [www.alnap.org/lessons\\_tsunami.htm](http://www.alnap.org/lessons_tsunami.htm) (Accessed at: 1 Feb 2007).
- Hunt, M. (2005) *Ethics and British Local Government: The Relevance of Compliance Strategies*, Sheffield Hallam University.
- Hussain, A. A. (2002) *Conduct & Discipline of Public Servants – Rights & Obligations*, Institute of Language & Literature, Minister of Education, Dewan Bahasa dan Pustaka.
- Hussain, A. A. (2004) *Legal Aspects in Construction Project*, USM Publisher.
- Hutter, B. M. (1988) *The Reasonable Arm of the Law? The Law Enforcement Procedures of Environmental Health Officers*, Oxford: Clarendon Press.
- Hutter, B. M. (1989) "Variations in Regulatory Enforcement Styles", *Law & policy*, pp. 11:153.
- Hutter, B. M (1997) *Compliance: Regulation and Enforcement*, Oxford: Clarendon Press.
- Hutter, B. M (2001) *Regulation and Risk: Occupational Health and Safety on the Railways*, Oxford: Oxford University Press.
- IC (2002) *International Humanitarian Law, Humanitarian Crises and Military Intervention*, Chairman's Report on the High-level Expert Group Meeting, Interaction Council, Tokyo [Online] <http://www.interactioncouncil.org/meetings/report/m022.pdf> (Accessed: 6 December 2009).
- Imrie, B. (2007) *The interrelationships between building regulations and architects' practices*, Environment and Planning B: Planning and Design, Vol. 34, pp. 925-943.
- Inam, A. (1999) "Institutions, Routines, and Crises: Post-earthquake Housing Recovery in Mexico City and Los Angeles", *Cities*, Vol. 16, No. 6, pp. 391-407.
- Inter-agency Standing Committee (IASC) (2006) *Guidance Note on Using the Cluster Approach to Strengthen Humanitarian Response*, Switzerland.
- International City/County Management Association (ICMA) (2003) "International City/County", *Management Association Report*, Washington, DC: 20002-4201.
- International Federation of Red Cross, Red Crescent Societies (IFRCRCS) (1993) *World Disaster Report*, IFRCRC, the Netherlands.
- International Federation of Red Cross and Red Crescent Societies (IFRCRCS) (2005) *World disasters report: focus on information in disasters*, Geneva: IFRC Publishing.

- International Labor Organisation (ILO) (1988) "Major Hazard Control – A Practical Manual, International Programme on Chemical Safety of UNEP, Major Hazard Control: the Malaysian Experience Disaster Prevention and Management", *International Labor Organisation (ILO)*, WHO (IPCS), Geneva.
- International Monetary Fund (IMF) (2008) *World Economic and Financial Surveys*, World Economic Outlook Database, April 2008 Edition [Online] Available at: <http://www.imf.org/> (Accessed: 2 Jan 2009).
- International Strategy for Disaster Reduction (ISDR) (2007) *Hyogo Framework for Action 2005-2015 (2005)* (Geneva: ISDR) [Online] [www.unisdr.org/wcdr](http://www.unisdr.org/wcdr) (Accessed: 12 January 2007).
- International Organisation for Standardisation (ISO) (2009) *General information on ISO* [Online] Available at: <http://www.iso.org/iso/> (Accessed on: 1 December 2008).
- Irwin, A., Rothstein, H., Yearley, S., and McCarthy, E. (1997) "Regulatory science-Towards a sociological framework", *Futures*, Great Britain, Vol. 29, No. 1, pp. 17-31.
- Isbister, J. (1993) *Promises not Kept: the Betrayal of Social Change in the Third World*, West Hartford, CT: Kumarin Press.
- Ishak, R., Azizi, A., & Mohamed, N. (2004) "Special Report: Disaster Planning and Management", *Environmental Health Unit Occupational and Environmental Health Section Disease Control Division Minister of Health Malaysia*, NCD Malaysia 2004, Vol 3, No.2.
- Ismail, A. (2003) "Built Environmental and Tropical Storm in Malaysia", *Paper Presented at the International Conference on Disaster Management: Disaster Risks and Vulnerabilities Reduction*.
- Jaafar, M., Ramayah, T. & Abdul-Aziz, A.-R. (2007) "Technology Readiness among Managers of Construction Firms", *Engineering, Construction and Architectural Management*, Vol 14, No. 2, pp. 180-191.
- Jaapar, A.R. (2006) *A Framework of A National Slope Safety System for Malaysia*, University of Hong Kong.
- James, S. (2005) "Fixing the future", *Planning*, Vol. 71, No. 8, pp. 14-19.
- Jaouadi, K. (2000) *Culture and Decision-Making Styles of Malaysian Managers: Relationships and Impact of Demographic Variables*, Unpublished MBA Thesis, Universiti Sains Malaysia.
- Jasanoff, S. (1986) *Risk Management and Political Culture*, New York: Russell Sage Foundation.
- Jean, R. (1991) *Innovation and Change; Developing Involvement and Understanding*, Open University Press.
- Jick, T. D. (1979) "Mixing Qualitative and Quantitative Methods: Triangulation in Action", *Administration Science Quarterly*.
- Johnson, A. G. (2000) *the blackwell dictionary of sociology*, Blackwell, Malden, Massachusetts.
- Johnson, C. (2002) *What's the Big Deal about Temporary Housing? Planning Considerations for Temporary Accommodation after Disaster: Example of the 1999 Turkish Earthquakes*, Disaster Management Conference. Waterloo, Canada.
- Johnston, D. M. & Ronan, K. R. (1998) "Risk Education and Intervention", in Sigvarrdson, H. (Ed.) *The Encyclopaedia of Volcanoes. Academic Press*, New York: in press.
- Johnston, D. M. & Ronan, K. R. (1999a) "Risk Education and Intervention", in Siggurdsson, H. (Ed.) *Encyclopedia of Volcanoes* New York: Academic Press.
- Johnston, D. M., Bebbington, M. S., Lai, C. D., Houghton, B. F., & Paton, D. (1999b) "Volcanic Hazard Perceptions: Comparative Shifts in Knowledge and Risk", *Disaster Prevention and Management*, Vol. 8, pp. 118-127.

- Johnston, D. M., Paton, D., Smith, L. & Millar, M. (2001) "Community Response to Hazard Effects: Promoting Resilience and Adjustment Adoption", *Australian Journal of Emergency Management*, Vol. 16, pp. 47-52.
- Johnston, R. (2004) *Regulation: Enforcement and Compliance*, Australian Institute of Criminology, Canberra.
- Johnstone, R. (1997) *Occupational Health and Safety Law and Policy*, Sydney: Law Book Information Services.
- Jonas, K., Eagle, A. H. & Stroebe, W. (1995) "Attitudes and Persuasion", in Argle, M & Colman, A.M (Eds.) *Social Psychology*, Essex: Longman.
- Jones, B. D. (2001) *Politics and the Architecture of Choice: Bounded Rationality and Governance*, Chicago: University of Chicago Press.
- Kaniasty, K. & Norris, F. H. (1995) "In Search of Altruistic Community: Patterns of Social Support Mobilisation Following Hurricane Hugo", *American Journal of Community Psychology*, Vol. 23, pp. 447-477.
- Kaplan, S. and Garrick, B. J. (1981) "On Quantitative Definition of Risk", *Risk Analysis*, Vol. 1, No. 1, pp. 11-27
- Kaplan, F. (1998) "Scientific Art Therapy: An Integrative and Research-Based Approach", in: *Art Therapy AATA*, Vol. 15, No. 2, pp. 93-98.
- Kapucu, N. (2006) "Interagency Communication Networks during Emergencies: Boundary Spanners in Multiagency Coordination", *American Review of Public Administration*, Vol. 36, No. 2, pp. 207-225.
- Kasperson, R. E., Renn, P. O., Slovic, H. S., Brown, J. E. R., Goble, J. X., Kasperson & Ratick, S. (1988) "The Social Amplification of Risk: a Conceptual Framework", *Risk Analysis*, Vol. 8, No. 2, pp. 177-87.
- Kates, R. W. (1971) "Natural Hazard in Human Ecological Perspective: Hypotheses and Models", *Economic Geography*, Clark University, Vol. 47, No. 3.
- Kates, R. W. & Burton, I. (1986) *Geography, Resources, and Environment*, vol. 1, Chicago: University of Chicago Press.
- Katsanis, C.J., Cahill, C. J. and C.H. Davidson (1997) "Networks, Partnerships and the Learning Organization," In Davidson, C. H. & Abdel Meguid, T. A. (Eds.) *Procurement - a Key to Innovation*, Montreal: IF Research Corporation, pp. 323-332.
- Kaufmann, H. (1993) *Social Psychology, The study of human interaction*, USA: Holt, Rhinehart and Winston Inc.
- Kaufmann, D. & Kraay, A. (2007a) *Governance Indicators: Where Are We, Where Should We Be Going?* World Bank Policy Research Working Paper [Online]  
<http://info.worldbank.org/governance/wgi/pdf/wps4370.pdf> (Accessed: 13 May 2008).
- Kaufmann, D., Mastruzzi, M., & Kraay, A. (2007b) "The Worldwide Governance Indicators Project: Answering the Critics", *World Bank Policy Research Working Paper*, Washington, D.C.
- Kee, C. K. (2006) *National Report Submitted by Malaysia to UNESCO*, Malaysian Meteorological Department.
- Kennedy, J. & Mansor, N. (2000) "Malaysian Culture and the Leadership of Organisations: A GLOBE Study", *Malaysian Management Review*, pp. 44-53.

- Khan, M. K. J. & Ali, J. (2001) "Examining the Structures, Roles and Functions of Response Organisations: the Case of Malaysia", *Paper Presented at the 2nd International Conference on Disaster Management*, Surabaya, Indonesia – May 3-5.
- Khondker, H. (2002) *Methods of Disaster Research*, USA: Xlibris Corporation.
- Keith, S. (1992) *Environmental Hazards: Assessing Risk and Reducing Disaster*, London, UK: Routledge.
- Keivani, R. & Werna, E. (2001) "Refocusing the Housing Debate in Developing Countries from a Pluralist Perspective", *Habitat International*, Vol. 25, No. 2, pp. 191-208.
- Kelley, S. W. (1992) "Developing Customer Orientation among Service Employees", *Journal of the Academy of Marketing Science*, Volume 20, Winter, pp. 27-36.
- Kende, M. S. (2004) "South African Constitutional Court's Construction of Socio-Economic Rights: A Response to Critics", *South African Journal on Human Rights*, Cambridge University Press.
- Kent, R.C. (1987) *Anatomy of Disaster Relief*. New York, NY: Pinter Publishers.
- Keogh, G. & D'Arcy, E. (1998) "Property Market Efficiency: an Institutional Perspective", *Discussion Paper 98-02*, Aberdeen Papers in Land Economy.
- Keohane & Ostrom, E. (1995) *Local Commons and Global Interdependence*, London: Sage.
- Kerlinger, F.N. (1986) *Foundations of Behavioural Research* (3<sup>rd</sup> Edn.) Fort Worth, TX: Holt, Rinehart, and Winston.
- Kjellén, U. (1982) "An Evaluation of Safety Information Systems at Six Medium-Sized and Large Firms", *Journal of Occupational Accidents*, Vol. 3, pp. 273-288.
- Knoster, T. (1991) *Factors in Managing Complex Change*, Presentation to the TASH Conference, Washington DC.
- Koehler, G. A., Kress, G. G. & Miller, R. L. (2001) "What Disaster Response Management Can Learn From Chaos Theory", in Farazmand, A. (Ed.) *Handbook of Crisis and Emergency Management*, Marcel Dekker, Inc.: New York, pp. 293-308.
- Kohlberg, L. (1969) "Stage and Sequence: the Cognitive-Development Approach to Socialisation", in Goslin, D.A. (Ed.) *Handbook of Socialisation Theory and Research*. New York, NY: Rand McNally.
- Kohlberg, L. (1976) "Moral Stages and Moralisation", in Likona, T. (Ed.) *Moral Development and Behaviour*, Holt, Rinehart & Winston, New York, NY, pp. 31-53.
- Kohlberg, L. (1981) "Essays on Moral Development", Vol. 1, *The Philosophy of Moral Development: Moral Stages and the Idea of Justice*, San Francisco, CA: Harper & Row.
- Kollock, P. (1998) "Social Dilemmas: The Anatomy of Cooperation", *Annual Review of Sociology*, Vol. 24, No. 183-214.
- Krieffing, L. (1991) "Rigour in Qualitative Research, the Assessment of Trustworthiness", *The journal of Occupational Therapy*, Vol. 45, No. 3, pp. 214-222.
- Krimgold, F. (1976) *Frederick, Overview of the Priority Area Natural Disaster*, New York: United Nations.
- Kuan, O. W. (1994) *the Effect of Marital Status of Working Women on Organisational Commitment and Work Stress*, Unpublished MBA Thesis, Penang: Universiti Sains Malaysia.



- Kunreuther, H. (1996) "Mitigating Disaster Losses through Insurance", *Journal of Risk and Uncertainty*, Kluwer Academic Publishers, Vol. 12, pp. 171-187
- Kvale, S. (1996) *InterViews: An Introduction to Qualitative Research Interviewing*, Thousand Oaks, CA: Sage.
- Lai, A. Y, He, J. L , Tan, T. B. and Phua, K. H. (2009) "A Proposed ASEAN Disaster Response, Training and Logistic Centre Enhancing Regional Governance in Disaster Management", *Transition Studies Review*, 16(2) [Online] <http://www.springerlink.com/content/w48gr611823405n2/> (Accessed: 1 December 2009).
- Lalonde, C. (2007) "Primary Healthcare Organizations Facing a Disaster: the Quebec Experience", *Disaster Prevention and Management: An International Journal*, Vol. 16, No. 1. (2007), pp. 42-55.
- Landesman, L.Y., Malilay, J., Bissell, R. A., Becker, S. M., Roberts, L., & Ascher, M., S. (2001) "Roles and Responsibilities of Public Health in Disaster Preparedness and Response", *Public Health Issues in Disaster Preparedness*, Aspen Publishers, Inc. 1-56.
- Landesman, L.Y. (2005) *Public Health Management of Disasters: The Practice Guide* (2<sup>nd</sup> Edn.) American Public Health Association.
- Lange, B. (1999) "Compliance Construction in the Context of Environmental Regulation", *Social and Legal Studies*, Vol. 8, No. 4, pp. 549-567.
- Langran, K. & Terich, T. (1982) *Government response to the Mount St. Helens disaster: a study of perceptions and attitudes in the Long- view-Kelso and Yakima areas*, WA: Eastern Washington University Press, pp. 215-224.
- Lansing, L. (1991) *Priests and Programmers: Technologies of Power in the Engineered Landscape of Bali*, Princeton, Univ. Press.
- LaPlante, Josephine, M. (1988) "Recovery Following Disaster: Policy Issues and Recommendations", in: Comfort, L. K. (Ed.) *Managing Disaster: Strategies and Policy Perspectives*, Durham: Duke University Press, pp. 217-235.
- Larrivee, B. (1981) "Effect of Inservice Training Intensity on Actors' Attitudes towards Mainstreaming", *Exceptional Children*, Vol 48. No.1, pp 34-39.
- Larsson, G. & Enander, A. (1997) "Preparing for Disaster: Public Attitudes and Actions", *Disaster Prevention and Management*, Vol. 6, No. 1, pp. 11-21.
- Lavalla, R. & Stoffel, S. (1983) *Blueprint for Community Emergency Management: a Text for Managing Emergency Operations*, Emergency Response Institute, WA: Olympia.
- Layder, D. (1993) *New Strategies in Social Research*, Cambridge: Polity Press
- Lechat, M. F. (1990) "The International Decade for Natural Disaster Reduction: Background and Objectives", *Disasters*, Vol. 14, pp.1-6.
- Leckie, S. & Thiele, B. (2003) *United Nation – HABITAT International Instruments on Housing Right*, UN-HABITAT Consultancy Report Compiled by the Centre on Housing Rights and Evictions (COHRE).
- Lee, J. (1976) *Legitimation Crisis*, London: Heinemann.
- Lee, L. M., Abdullah, A. M. & Rahim, A. (1990) "Town Planning in Malaysia - History and Legislation", *Urban Development Studies Fund*, USM.
- Leff, A. (1978) Law and ..., *Law Journal, Yale*, Vol. 87, pp. 989-1011.

- Leong, H. K. (2006) "Malaysia's Civil Service Reform: Mahathir's Legacies and Abdullah's Challenges", in Swee-Hock, S. & Kesavapany, K. (Eds.) *Malaysia: Recent Trends and Challenges*, ISEAS, Singapore, pp. 195-209.
- Levine, F. J., Tapp, J. L. (1977) "The Dialectic of Legal Socialisation in Community and School", in Tapp, J.L., Levine, F.J. (Eds.) *Law, Justice and the Individual in Society: Psychological and Legal Issues*. New York, NY.: Holt, Rinehart & Winston.
- Levine, J. N., Esnard, A. M. and Sapat, A. (2007) "Population Displacement and Housing Dilemmas Due to Catastrophic Disasters", *Journal of Planning Literature*, Vol. 22, No. 1, 3-15 [Online] <http://www.vpt.fau.edu/research/projects/NSF/pdf> (Accessed: 22 November 2009).
- Levine, Y. (1992) "The Management of Tel-Aviv Population made Homeless by Missile Attacks", *Public Health Rev*, Vol. 20, pp: 323.
- Lichbach, M. I. (1995) *The Rebel's Dilemma*, Ann Arbor: University of Michigan Press.
- Likert, R. (1932) "A Technique for the Measurement of Attitudes", *Archives of Psychology*: No.140.
- Lincoln & Guba (1985) *Naturalistic Inquiry*, Newbury Park: Sage Publications.
- Lindell, M. K., Whitney, D.J. (2000) "Correlates of Household Seismic Hazard Adjustment Adoption", *Risk Analysis*, Vol. 20, pp. 13-25.
- Lindell, M. K., Perry, R.W. (2001) "Household Adjustment to Earthquake Hazard", *Environment and Behaviour*, Vol. 32, pp.590-630.
- Linder, S.H. & Peters, G. (1987) "A Design Perspective on Policy Implementation: The Fallacies of Policy Implementation", *Policy Studies Review*, Vol. 6, No. 3.
- Lipsky, M. (1980) *Street Level Bureaucracy*, New York: Russell Sage Foundation.
- Lizarralde, G. (2000) *Post-disaster low-cost housing: The case for social reconstruction*, Unpublished thesis at McGill University [Online] <http://www.grif.umontreal.ca/pages> (Accessed: 3 August 2007).
- Lizarralde, G., & Davidson, C. (2001a) *Models of Reconstruction Projects*, i-Rec: [Online] <http://www.GRIF.UMontreal.ca/pages/modelframe.html> (Accessed: 7 Sept. 2001).
- Lizarralde, G., & Davidson, C. (2001b) *Towards a Pluralist Approach in Post-Disaster Housing Reconstruction in Developing Countries*, i-Rec.
- London, M. & Klimoske, R. J. (1975) Self-Esteem and Job Complexity as Moderators of Performance and Satisfaction, *Journal of Vocational Behaviour*, Vol. 6, pp. 293-304.
- Loo, K. (1999) *History of Uniform Building by Law*, Unpublished Report.
- Louis, S. & Rosenblum, S. (1981) *Designing and Managing Interorganisational Networks*. Washington, DC: National Institute of Education.
- Lovelace, K., Shapiro, D. L. & Weingart, L. R. (2001) "Maximising Cross-Functional New Product Teams' Innovativeness And Constraint Adherence: A Conflict Communications Perspective", *Academy of Management Journal*, Vol. 44, No. 4, pp. 779-793.
- Luhman, N. (1993) *Risk: A Sociological Theory*, New York: Aldin De Gruyter.
- Lurey, J. S. & Raisinghani, M. S. (2001) "An Empirical Study of Best Practices in Virtual Teams", *Information & Management*, Vol. 38, pp. 523-544.

- Luttig, C. (2000) "Safety Culture: Beyond the Limitations of Systems' Work Words", *Victorian Work Cover Authority*, Vol. 30, pp. 10 -11.
- MacCrimmon, K. R. & Wehrung, D. A. (1986) *Taking Risks: The Management of Uncertainties*, New York: Free Press.
- Macpherson, R. (2004) *CARE International Safety & Security Handbook*, Cooperative for Assistance and Relief Everywhere.
- Madey, D. (1982) *Benefits of Qualitative and Quantitative Methods in Programme Evaluation, with Illustrations*, Educational Evaluation and Policy Analysis.
- Mair, D. & Miller, G. (1992) *A modern Guide to Economic Thought: An introduction to Comparative Schools of Thought in Economics*, Edward Elgar.
- Makkai, T. & Braithwaite, V. (1993) "Professionalism, Organisations and Compliance", *Law and Social Inquiry*. Vol. 33.
- Malaysian Audit Department (2007) *Malaysian Audit Report*, Kuala Lumpur: Percetakan Nasional Berhad.
- Malaysian Government (2001) *Eight Malaysia Plan*, Kuala Lumpur, Percetakan Nasional Berhad.
- Malone, A. W. (2003) *What Data do we need for Slope Safety Management Purposes?* Presentation to the Seminar Pengurusan Cerun 8 May 2003, TSR Project Slope Protection Study for Federal Route 22 Tamparuli, Sandakan Road, Sabah.
- Maloney, W. A. (2001) "Regulation in an Episodic Policy-Making Environment: the Water Industry in England and Wales", *Public administration*, Vol. 79, No. 3, pp. 625–642.
- Mansaray, A. & Abijoye, J.O. (1998) "Environmental Knowledge, Attitudes and Behaviour in Dutch Secondary School", *Journal of Environmental Education*, Vol. 30, No. 2, pp. 4-11.
- Marican, M. (1979) *Public Personnel Administration in Malaysia*, Institute of Southeast Asia Studies.
- Marincioni, F. (2007) "Information Technologies and The Sharing of Disaster Knowledge: The Critical Role of Professional Culture", *Disasters*, Vol. 31, No. 4, pp. 459–476.
- Martin, R. L. & Sunley, P. (2001) "Rethinking the 'Economic' in Economic Geography: Broadening our Vision or Losing our Focus?" *Antipode*, Vol. 33, pp. 148–161.
- Maskrey, A. (1989) *Disaster Mitigation: A Community Based Approach*, Oxford: Oxfam.
- Maxwell, J. A. (2005) *Qualitative Research Design, An Interactive Approach*, London: Sage Publication.
- Maykut, P. & Morehouse, R. (1994) *Beginning Qualitative Research: A Philosophic and Practical Guide*, London: Falmer Press.
- May, P. J. (1985) *Recovering from Catastrophes: Federal Disaster Relief Policy and Politics*, Westport, Conn.: Greenwood Press.
- May, P. J. & Williams, W. (1986) *Disaster Policy Implementation: Managing Programme under Shared Governance*, New York: Plenum Press.
- May, P. J. & Burby, R. (1998) "Making Sense out of Regulatory Enforcement", *Law and policy*, Vol. 20, No. 2, pp. 157-182.
- May, P. J. (2003) "Performance-Based Regulation and Regulatory Regimes: the Saga of Leaky Buildings", *Law & Policy*, Vol. 25, pp.381-401.

- May, P. J. (2007) "Risk Analysis Addressing public risks: Federal earthquake policy design", *Journal of Public Policy Analysis and Management*, Vol. 10, No. 2, pp. 263 – 285.
- Mazerolle, L. G. & Roehl, J. (1998) "Civil Remedies and Crime Prevention: An Introduction", in Mazerolle, L.G. & Roehl, J. (Eds.) *Civil Remedies and Crime Prevention: Crime Prevention Studies 9*: 1–20 Monsey NY: Criminal Justice Press.
- Mazerolle, L. G., Price, J. F. & Roehl, J. (2000) "Civil Remedies and Drug Control: a Randomised Field Trial", in Oakland, CA. *Evaluation Review*, Vol. 24, No. 2, pp. 211–239.
- McBean, G. (2000) *Forecasting in the 21<sup>st</sup>. Century*, 9<sup>th</sup>. IMO Lecture, WMO-No. 916, Geneva: World Meteorological Organisation.
- McCloskey, J. (1974) "Influence of Rewards and Incentives on Staff Nurse Turnover Rate", *Nursing Research*, Vol. 23, pp. 239-247.
- McCluskey, M. (1998) "The Illusions of Efficiency in Workers' Compensation 'Reform'", *Rutgers Law Review*, Vol. 50, No. 3, pp. 657-941.
- McEntire, D. A. (1997) "Reflecting on the Weaknesses of the International Community During the IDNDR: Some Implications for Research and Its Application", *Disaster Prevention and Management*, Vol. 4, No. 6, pp. 221-233.
- McEntire, D. A. (2001) "Triggering Agents, Vulnerabilities and Disaster Reduction: Towards a Holistic Paradigm", *Disaster Prevention and Management*, Vol. 10, pp. 189-196.
- McEntire, D. A. & Marshall, M. (2003a) "The Status of Emergency Management Theory: Issues, Barriers, and Recommendations for Improved Scholarship", *Paper Presented at the FEMA Higher Education Conference June 8, 2004*, Emmitsburg, MD.
- McEntire, D. A. & Meyers, A. (2003b) "Disaster preparedness", *International City/County Management Association (ICMA)*, Vol. 35, No. 11, pp. 1-19.
- McGarity, T. (1985) "Bhopal and the Export of Hazardous Technologies", *Texas International Law Journal*, pp. 333: 20
- McGivern, Y. (2003) *The Practice of Market and Social Research*, Prentice Hall.
- McGivern, Y. (2005) *Collecting Qualitative data, Dissertation Preparation and Research Methods*, Essex: Pearson Education Limited.
- McGuire, W. J. (1969) "The Nature of Attitudes and Attitude Change", in Lindzey, G. & Aronson, E. (Eds.) *The Handbook of Social Psychology* (2<sup>nd</sup> Edn.) Vol. 3, Reading, MA: Addison-Wesley.
- McGuire, W. J. (1985) "Attitudes and Attitude Change", In Lindzey, G. & Aronson, E. (Eds.) *Handbooks of Social Psychology* (3<sup>rd</sup> Edn.), New York: Random House, Vol. 2, pp. 233-346.
- McMillan, J. H., & Schumacher, S. S. (1993) *Research in Education: A Conceptual Introduction*. New York: Longman.
- Meadows, D. (1992) *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*. Chelsea Green, Chelsea: VT.
- Meidinger, E. (1985) "On Explaining the Development of 'Emissions Trading' in U.S. Air Pollution Regulation", *Law & Policy*, Vol. 7, No. 4, pp. 457-489.

- Meidinger, E. (1986) *Regulatory Culture and Democratic Theory*, Working paper of the working group on sociology of regulation, Baldy center for Law and social policy, Faculty of Law and Jurisprudence, State University of New York at Buffalo.
- Meidinger, E. (1987) "Regulatory Culture: Theoretical Outline", *Law and Policy*, Vol. 9, pp. 355.
- Mentzger, M & Schwenk, C (1990) "Decision Making Models, Devil's Advocacy and the Control of Corporate Crime", *American Business Law Journal*, Vol. 28, No. 323.
- Merriam, S. B. (1998) *Qualitative Research and Case Study Applications in Education*, San Francisco: Jossey-Bass.
- Merton, R. (1957) *Social Theory and Social Structure*, New York, NY: Free Press.
- Merton, R. (1969) "Foreword", *Communities in Disaster: A Sociological Analysis of Collective Stress Situations*, Garden City, NY: Doubleday and Company.
- Messick & David, M. (1999) "Alternative Logics for Decision Making in Social Settings", *Journal of Economic Behaviour and Organisation*, Vol. 39, pp. 11–28.
- Middleton, N. & O'Keefe, P. (1998) *Disasters and Development: The Politics of Humanitarian Aid*, London: Pluto Press.
- Miles, M. B. & Huberman, A.M. (1984) *Qualitative Data Analysis: A Sourcebook of New Methods*, Newbury Park, CA: Sage Publications.
- Miles, S. J. & Mangold, G. (2002) "The Impact of Team Leader Performance on Team Member Satisfaction: the Subordinate's Perspective", *Team Performance Management*, Vol. 8, No. 5/6, pp. 113-121.
- Mileti, D. S., Drabek, T.E., & Haas, J.E. (1975) *Human Systems in Extreme, Environments*, Boulder, CO: Programme on Environment and Behaviour, Institute of Behavioural Science, University of Colorado.
- Mileti, D. S., Fitzpatrick, C. & Farhar, B. C. (1990) *Risk Communication and Public Response to the Parkfield Earthquake Prediction Experiment: Final Report to the National Science Foundation*, Hazards Assessment Laboratory, Colorado State University, Fort Collins.
- Mileti, D. S. & Fitzpatrick, C. (1992) "The Causal Sequence of Risk Communication in Parkfield Earthquake Prediction Experiment", *Risk Analysis*, Vol. 12, pp. 393-400.
- Mileti, D. S. & Passerini, E. (1996) "A Social Explanation of Urban Relocation after Earthquakes", *International Journal of Mass Emergencies and Disasters*, Vol. 14, No. 1, pp. 97-110.
- Mileti, D. S. & Darlington, J. D. (1997) "The Role of Searching in Shaping Reactions to Earthquake Risk Information", *Social Problems*, Vol. 44, pp. 89-102.
- Mileti, D. S. (1999) *Disasters by Design: A Reassessment of Natural Hazards in the United States*, Washington, D.C.: Joseph Henry Press.
- Millar, M., Paton, D. & Johnston, D. (1999) "Community Vulnerability to Volcanic Hazard Consequences", *Disaster Prevention and Management*, Vol. 8, pp. 255-60.
- Mills, B. J. (2001) "The Urban Environment as Hazard Source and Sink", *Environments*, Vol. 29, No. 1, pp. 17-38.
- Minear, L. & Weiss, T. (1995) *Mercy under Fire: War and the Global Humanitarian Community*, Boulder, CO.: Westview Press.

- Ministry of Housing and Local Government Malaysia (2000) *Buletin Perangkaan Perumahan 2000*, Kuala Lumpur: Percetakan Nasional Berhad.
- Mintz, S. H. (1982) *Culture: An Anthropological View*, Yale Review.
- Mischel, W., Mischel, H.N. (1976) "A Cognitive Social-Learning Approach to Morality and Self-Regulation", in Lickona, T. (Ed.) *Moral Development and Behaviour*, Holt, New York, NY: Rinehart & Winston.
- Mitchell, J. K. (2006) "The Primacy of Partnership: Scoping a New National Disaster Recovery Policy", *The ANNALS of the American Academy of Political and Social Science*, Vol. 604, No. 1, pp. 228-255.
- Mohamed, S. (1993) *Benchmarking and Improving Construction Productivity* [Online] [www.odihpn.org](http://www.odihpn.org). No. 43. <http://www.emeraldinsight.com> (Accessed: 20 Jan 2008).
- Mohsini, R.A. & Davidson, C.H. (1992) "Determinants of performance in the traditional building process", *Construction Management and Economics*, New York: Routledge, Vol. 10, No. 4, pp. 343-359.
- Moin, C. (2006) *Strengthening National and Local Capacities for Vulnerability & Risk Reduction, Disaster Mitigation, Response and Recovery* [Online] <http://web.adrc.or.jp/acdr2006seoul/presentations/part1/MALAYSIA.pdf> (Accessed: 28 Jan 2007).
- Moin, C. (2007a) *Scientific, Technical & Disaster Preparedness & Prevention, National Seminar on Socio-Economic Impacts of Extreme Weather and Climate Change*, Minister of Science, Technology and Innovation.
- Moin, C. (2007b) *Disaster Mitigation Support and Management in Malaysia*, Crisis and Disaster Management Directorate National Security Division (NSD) Prime Minister's Department Malaysia.
- Mokhiber, R (1988) *Corporate Crime and Violence: Big Business Power and the Abuse of Public Trust*. San Francisco: Sierra Books.
- Montgomery, J. D., & Esman, M. J. (1966) *Development Administration in Malaysia*, London.
- Moore, H. E. (1963) *Before the Wind: A study of the Response to Hurricane Carla*, Disaster Study No. 19, Washington DC., National Academic of Sciences, National Research Council.
- Morago, L. N. (2005) *Forced Displacement and Human Rights: The International Legal Framework Applicable to Refugees and Internally Displaced Persons*, ACTIONAID, 2000.
- Mouzellis, N. P. (1968) *Organisation and bureaucracy: an analysis of modern theories*, USA: International and Pan-American Copyright Conventions.
- Malaysian Red Crescent Society (MRCS) (2005) *Strategic Plan 2005-2009* [Online] <http://www.redcrescent.org.my/drupal/node> (Accessed: 25 April 2007).
- Mulwanda, M. P. (1992) "Active Participants or Passive Observers?", *Urban Studies*, the Sage Online, 29(1) 89 – 97 [Online] <http://usj.sagepub.com/cgi/29/1/89> (Accessed: 12 December 2009).
- Murray, T. J., & Forbes, D. (1986) "Where Have All the Middle Managers Gone?" *Dun's Business Month*, pp. 31-34.
- Mushkatel, A. H. (1985) "Emergency Management and the Intergovernmental System", *Public Administration Review*, Vol. 45(Special Issue), pp. 49-56.
- Myers, B. (1992) "Disaster Study of War", *Disasters*, Vol. 15, pp. 318-27.
- Nash, M. (1985) *Managing Organisational Performance*, San Francisco, CA: Jossey-Bass.

- National Housing Corporation (SPNB) (2006) *Rumah Mesra Rakyat programme (RMR)* [Online] [http://www.spnb.com.my/eng/corporate/projects\\_rmr.htm](http://www.spnb.com.my/eng/corporate/projects_rmr.htm) (Accessed: 5 July 2008).
- Navaratnam, R. V. (2004) *Winds of Change*, Subang Jaya: Pelanduk Publications.
- Neuman, W. L. (2006) *Social research Method- Qualitative and Quantitative Approaches*, Boston: Pearson Education.
- Newkirk, R. T. (2001) "The Increasing Costs of Disasters in Developed Countries", *Journal of Contingencies and Crisis Management*, Blackwell Publishers LTD, Vol. 9, No. 3.
- Nilson, D. (1985) "Conclusion: Natural hazard Political Contexts and Adoption Strategies", *Policy Studies Review*, Vol. 4, pp. 734-738.
- National Institute of Public Administration (NIPA) (1994) *Vision 2020 and the Malaysian Public Service*, Kuala Lumpur, National Training Institute.
- Noji, E. K. (1997) "Earthquakes" In Noji, E. K. (Ed.) *The Public Health Consequences of Disasters*, New York: Oxford University Press, pp. 135-178
- Norhasmah, S., Aini, M.S., Laily, P., Syarifah Azizah, H., Nurizan, Y., & Naimah, S. (2004) "Sikap dan Amalan Terhadap Keprihatinan Persekitaran", (Attitude and Practices towards Environmental Concern), *Malaysian Journal of Consumer and Family Economics*, Vol. 7, pp. 54-65.
- Norman, S. & Coles, E. (2003) "Bridging the Divide from Theory to Practice", *Paper Presented at the 40th Anniversary Conference of the Disaster Research Center*, University of Delaware. April.
- North D. C. (1996) *Institution, Institutional Change and Economic Performances*, Cambridge University Press, Reprinted.
- Norusis, M.J (1994) *SPSS Professional Statistics 6.1.*, United States of America: SPSS INC.
- Nozick, R. (1981) Philosophical Explanations, "Knowledge and Skepticism, I. Knowledge", *Conditions for Knowledge*, Harvard University Press, pp. 172-178.
- National Security Council (NSC) (1997) *Principle and Management Mechanism of National Disaster Relief, Directive No. 20*, Kuala Lumpur: Malaysian Government Printing Press.
- O'Brien, G. & Read, P. (2004) "Future UK Emergency Management: From discretion to regulation - panacea or long overdue reform?", *Proceedings of The International Emergency Management Society 11th Annual Conference*, May 18- 21, 2004 Melbourne, Victoria, Australia.
- O'Brien, G., Wisner, B., Keefe, P. & Rose, J. (2006) "Climate Change and Disaster Management", *Disasters*, Vol. 30, No. 1.
- O'Keefe, P., Westgate, K. & Wisner, B. (1976) "Taking the Naturalness out of Natural Disasters", *Nature*, Vol. 260, pp. 566-67.
- O'Keefe, P., O'Brien & G., Rose, J. (2006) *Climate Change and Pre-disaster Planning A note for COP 10* [Online] <http://www.nccsap.net/html/CCPDD.pdf> (Accessed: 20 April 2007).
- Office of Deputy Prime Minister (ODPM) (2005) *Building Regulations*, Office of the Deputy Prime Minister, London.
- Oke, S. A & Obawa, O. E. C. (2007) "Implementation of ISO-Based Quality Management Systems: A Review of the Literature", *International Journal of Productivity and Quality Management*, Inderscience Publisher, Vol. 2, No.1, pp. 81 – 111.

Oliver, S. A. (1990) "Post-Disaster Housing Reconstruction and Social iIequality: A Challenge to Policy and Practice", *Disasters*. Vol. 14, No. 1, pp. 7-19.

Oliver, P. (1987) *Disasters and the Small Dwelling*, Davis, I. (Ed.) Oxford: Pergamon Press.

Oloruntoba, R. (2005) "A Wave of Destruction and the Waves of Relief: Issues, Challenges and Strategies", *Disaster Prevention and Management*, Vol. 14, pp. 506-521.

Omar, E. (1980) "*The Civil Service Systems in Malaysia*", in Raksasataya and Siedentopf, Asia Civil Services, pp. 255-257.

Omar, I. (2002) *Rules Affecting the Land Development Process in Malaysia – A Review on Regulation of Environmental Impact Assessment (EIA)*, 8th. Pacific Rim Real Estate Society Conference, Lincoln University, Christchurch, New Zealand.

Omar, H. & Alon, N. (1994) "The Continuity Principle: A Unified Approach to Disaster and Trauma", *American Journal of Community Psychology*, Vol. 22, pp.273-87.

Oppenheim, A. N. (1992) *Questionnaire Design, Interviewing and Attitude Measurement* (1<sup>st</sup> Edn.) London: Pinter Publisher.

Oppenheim, A. N. (1996) *Questionnaire Design, Interviewing and Attitude Measurement*, London: Pinter Publishers.

Oppenheim, A. N. (2000) *Questionnaire Design, Interviewing and Attitude Measurement* (New Edn.) London: Continuum.

Oppenheim, A. N. (2001) *Questionnaire Design, Interviewing and Attitude Measurement* London: Pinter Publishers.

Osborne, D. & Gaebler, T. (1992) *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, Reading Mass: Addison-Wesley.

Osman, S. (2003) *Malaysian Civil Service: Challenges and Strategy for the Future*, Prime Minister's Office, Mimeo.

Ostrom, E. (1990) *Governing the Commons, the Evolution of Institutions for Collective Action, Political Economy of Institutions and Decisions*, Cambridge: Cambridge University Press.

Ostrom, E. (2002) "Policy Analysis in the Future of Good Societies", PEGS: The Good Society, Vol. 11, No. 1, pp. 42-48.

Ostrom, E. (2007) "Collective Action and Local Development Processes", *Sociologica, Italian Journal of Sociology*, Vol. 3, pp. 1-32.

Oxfam (1996) *Water, Sanitation and Shelter Packs*, Oxfam Public Health Team [Online] Available at: [www.oxfam.org](http://www.oxfam.org) (Accessed at: 13 Jan 2007).

Oxfam International (2005) *A Place to Stay, a Place to Live*. Oxfam Briefing Note [Online] Available at: [www.oxfam.org.uk/what\\_we\\_do/issues/conflict\\_disasters/downloads/ bn\\_ tsunami\\_ women.pdf](http://www.oxfam.org.uk/what_we_do/issues/conflict_disasters/downloads/bn_tsunami_women.pdf) (Accessed: 2 Feb 2007).

Ozceylan, D., & Coskun, E. (2008) "Defining Critical Success Factors for National Emergency Management Model and Supporting the Model with Information Systems", *Proceedings of the 5th International ISCRAM Conference*, Washington, DC, USA.

Ozgediz, S. (1983) *Managing the Public Service in Developing Countries*, Washington, D.C. World Bank Staff Working Papers, No. 583, pp. 2.



- Paker, I. (2005) *Qualitative Psychology: Introducing Radical Research*, Open University Press.
- Pan American Health Organisation (PHO) (1994) *A World Safe from Natural Disasters: The Journey of Latin America and the Caribbean*, PHO, Washington, DC.
- Parker, C. (1999) "Compliance Professionalism and Regulatory Community: the Australian Trade Practices Regime", *Journal of Law and Society*, Vol. 26, No. 2, pp. 215–239.
- Parker, C. (2002) *The Open Corporation: Effective Self Regulation and Democracy*, Cambridge: Cambridge University Press.
- Parker, C. & Braithwaite, J. (2003) "Regulations", in Cane, P. & Tushnett, M. (Eds.) *Oxford Handbook of Legal Studies*, New York: Oxford University Press.
- Parker, C. (2003) "Regulator-Required Corporate Compliance Programme Audits", *Law & policy*, Vol. 25, No. 3, pp. 221–244.
- Parker, C. & Nielson, V. E. (2006) "Do Business Take Compliance Systems Seriously? An Empirical Study of the Implementation of Trade Practices Compliance Systems in Australia, Melbourne", *University Law Review* [Online] <http://www.austlii.edu.au/au/journals> (Accessed: 12 March 2008).
- Parr, A. (1970) "Organisational Response to Community Crises and Group Emergence", *American Behavioural Scientist* (March), pp. 420-433.
- Paton, D. & Bishop B. (1996) "Disasters and Communities: Promoting Psychosocial Well-Being", In Paton, D. and Long, N. (Eds.) *Psychological Aspects of Disaster: Impact, Coping, and Intervention*, Palmerston North, Dunmore Press.
- Paton, D., Johnston, D., Houghton, B., & Smith, L.M. (1998) "Managing the Effects of a Volcanic Eruption: Psychological Perspectives on Integrated Emergency Management", *Journal of the American Society of Professional Emergency Managers*, Vol. 5, pp. 59- 69.
- Paton, D. & Flin, R. (1999) "Disaster Stress: An Emergency Management Perspective", *Disaster Prevention and Management*, Vol. 8, pp. 261-267.
- Paton, D., Smith, L. & Violanti, J. (2000) "Disaster Response: Risk, Vulnerability and Resistance", *Disaster Prevention and Management*, Vol. 9, pp. 173-179.
- Paton, D. (2001) "Disaster and Communities: Vulnerability, Resilience and Preparedness", *Disaster Prevention and Management*, Vol. 10, No. 4, pp. 270-77.
- Patton, M.Q. (1980) *Qualitative Evaluation and Research Methods*, Newbury Park, CA:Sage.
- Patton, M.Q. (1990) *Qualitative Evaluation and Research Methods* (2<sup>nd</sup> Edn.) Newbury Park: Sage.
- Patton, M.Q. (2002) *Qualitative Research and Evaluation Methods*, California: Sage Publications Thousand Oaks.
- Payan, J. M. & McFarland, R. G. (2005) "Decomposing Influence Strategies: Argument Structure and Dependence Determinants of Effectiveness of Influence Strategies in Gaining Channel Member Compliance", *Journal of Marketing*, Vol. 69, pp. 66-79.
- Public Complaints Bureau (PCB) (2006) "Enhancing the Effectiveness of Public Sector Delivery System: the Public Expectations", in Mahbob, S. (Ed.) *Good Governance for Development*, Malaysian Institute of Integrity, Kuala Lumpur, pp. 200-12.
- Pennings, J.M.E. & Wansink, B. (2004) "Channel contract behaviour: the role of risk attitudes, risk perceptions, and channel members' market structures", *Journal of Business*, Vol. 77, pp. 697–723.

- Pennings, J. M E. & Grossman (2008) "Responding to Crises and Disasters: the Role of Risk Attitudes and Risk Perceptions", *Disasters*, Garsington Road, Oxford: Blackwell Publishing, Vol. 32, No. 3, 434 –448.
- Perry, R. W. (1984) "Evaluating Emergency Response Plans", *Emergency Management Review*, Vol. 1, pp. 20-23.
- Perry, R. W. (1985) *Comprehensive Emergency Management: Evacuating Threatened Populations*, Greenwich, Conn.: JAI Press.
- Petak, W. J. & Atkisson, A. A. (1982) *Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected*, New York: Springer-Verlag.
- Peter, J. (1997) "Help after a Disaster: Applicant's Guide to the Individuals & May, State Regulatory Roles: Choices in the Regulation of Building Safety", *State and Local Government Review*, Vol. 29, No. 2, pp. 70-80.
- Peters, B. G. (2001) *The Politics of Bureaucracy* (5<sup>th</sup> Edn.) New York: Routledge.
- Piaget, J. (2001) *Studies in Reflecting Abstraction*, Hove, UK: Psychology Press.
- Pidgeon, N. (1998) "Safety Culture: Key Theoretical Issues", *Work & Stress*, Vol. 12, pp. 202-216.
- Pole, C. J. & Lampard, R. (2002) *Practical Social Investigation - Qualitative and Quantitative Methods in Social Research*, Harlow, Essex: Pearson Education Limited.
- Portsea, L. J. (1992) "Disaster Relief or Relief Disaster? A Challenge to the International Community", *Disasters*, Vol. 16, pp.1-8.
- Power, M. (1997) "The Audit Society: Rituals of Verification", Oxford: Oxford University Press.
- Prater, C. S. (2000) Politics of Hazard Mitigation, *Natural Hazard Review*, Vol. 1, No. 2, pp. 73-82.
- Pratt, J. W. (1964) "Risk Aversion in the Small and in the Large", *Econometrica*, Vol. 32, pp. 122–36.
- Pressman, J. L. & Wildavsky, A. (1973) *Implementation*, Los Angeles: University of California Press, Ltd.
- Prince, S. H. (1920) "Catastrophe and Social Change, Columbia University Studies in History", *Economics and Public Law*, New York: Columbia University Press.
- ProVention Consortium (2004) *International Cooperation on Humanitarian Assistance in the Field of Natural Disasters, from Relief to Development*, Report of the Secretary-General, Fifty-Ninth Session, Agenda Item 39 (a), A/59/374.
- Public Service Department (PSD) (1996) *Rearrangement of New Performance Appraisal System in the Malaysian Public Service*, National Printing Department, Kuala Lumpur, Service Circular No. 7.
- Public Safety and Emergency Preparedness Canada (PSEPC) (2004) *National Report: Canada*, Prepared for the International Strategy for Disaster Reduction World Conference on Disaster Reduction Kobe, Hyogo, Japan January, pp. 18-22.
- Punch, M. (1998) "Politics and Ethics in Qualitative Research", in Denzin, N. K. & Lincoln, Y. S. (Eds.) *the Landscape of Qualitative Research: Theories and Issues* (pp. 156-184) Thousand Oaks, CA: Sage Publications.
- Quah, S. T. (1986) "Towards Productivity and Excellence: A Comparative Analysis of the Public Personnel Systems in the ASEAN Countries", *the Asia Journal of Public Administration*, Vol. 8, No. 1, pp. 64-99.

- Quah, S. T. (2007) "Public Administration in Singapore: Maximising Efficiency and Minimising Corruption", in Topfer, K and Bodner, H. (Eds.) *Ideenimport: Experten aus aller Welt geben Impulse*, Stuttgart: Schaffer-Poeschel Verlag fur Wirtschaft, pp. 197-207.
- Quah, S. T. (2008) "Good Governance, Accountability and Administrative Reform in Singapore", *Journal of Chinese Studies*, Vol. 15, No. 1, pp. 17-34.
- Quarantelli, E. L. (1966) "Organisation Under Stress" in *Symposium on Emergency Operations* (Ed.) Bricton, R., Santa Monica: System Development Corporation, pp. 3-19.
- Quarantelli, E. L. & Dynes, R. R. (1977) "Response to Social Crisis and Disaster", *Annual Review of Sociology*, Vol. 3, No. 23, pp 49.
- Quarantelli, E. L. (1980) *Community Impact of Airport Disasters: Similarities and Differences when Compared with other Kinds of Disasters*, Pp. 1-17 in Managing the Problems of Aircraft Disaster Conference, Minneapolis, MN: Department of Conferences.
- Quarantelli, E. L. (1984) *Organisational Behaviour in Disasters and Implications for Disaster Planning*, National Emergency Training Center, Federal Emergency Management Agency (FEMA) Emmitsburg, Maryland.
- Quarantelli, E. L. (1988) "Disaster Crisis Management: the Summary of Research Findings", *In General Management Studies*, Vol. 25, No. 4, pp. 373-385.
- Quarantelli, E. L. (1990) *The Warning Process and Evacuation Behaviour: The Research Evidence. Preliminary Paper No. 148*, Disaster Research Center, University of Delaware, Newark [Online] <http://dspace.udel.edu:8080/dspace/handle/19716/520> (Accessed: 25 December 2006).
- Quarantelli, E. L. (1993) "The Environmental Disasters of the Future will be more and worse but the Prospect is not Hopeless", *Disaster Prevention and Management: An International Journal*. Vol. 2, pp. 11-25.
- Quarantelli, E. L. (1995a) "What Is a Disaster?", *International Journal of Mass Emergencies and Disasters*, Vol. 13, No. 3, pp. 221-229.
- Quarantelli, E. L. (1995b) "Patterns of Shelter and Housing in US Disasters", *Disaster Prevention and Management*, Vol. 3, No. 4, pp. 43-53.
- Quarantelli, E. L. (1997) "Research Based Criteria for Evaluating Disaster Planning and Managing", *The International Seminar on "Chernobyl and Beyond: Humanitarian Assistance to Disaster victims of Technological Disasters"*, Department of Humanitarian Affairs of the United Nations, Moscow, Russia on May 27-28.
- Radnor, H. A (1994) *Collecting and Analysing Interview Data*, Education Research Monograph Series, University of Northumbria.
- Rais, M. A. (1995) *Improving the Efficiency of the Public Sector: A Case Study of Malaysia*, Twelfth Meeting of Experts on the United Nations Programme in Public Administration and Finance New York, 31 July-11.
- Ramayah, T., Muhamad, J. & Suresh, T. (2001) *Job Satisfaction: Empirical Evidence for Alternatives to JDI*, The 32nd Annual Meeting of Decision Sciences Institute Conference, San Francisco, USA.
- Ramayah, T., Muhamad, J., Aizzat, M.N. & Koay, P.L. (2003) "Internal Group Dynamics, Team Characteristics and Team Effectiveness: A Preliminary Study of Virtual Teams", *the International Journal of Knowledge, Culture and Change Management*, Vol. 3, pp. 415-435.
- Ramin, K., & Werna, E. (2001) "Refocusing the Housing Debate in Developing Countries from a Pluralist Perspective", *Habitat International*, Vol. 25, pp. 191-208.

- Randall, D. M. & Baker, D. D. (1994) "The Threat of Legal Liability and Managerial Decision Making: Regulation of Reproductive Health in the Workplace", in Sitkin, S. & Beis, R. (Eds.) *The legalistic organisation*. Sage: Thousand Oaks, pp. 169–189.
- Ransley, J. (2002) *Policing Public Order and Public Space: New Roles and Powers*, Unpublished Paper Presented to ANZSOC Conference, Melbourne.
- Rashid, M. Z., & Ibrahim, S. (2002) *Executive and Management Attitudes towards Corporate Social Responsibility in Malaysia*, Corporate Governance, pp. 10-16.
- Rawlings, H. F. (1986) *The Malaysian Constitutional Crisis of 1983*, International & Comparative Law Quarterly, Cambridge University Press, pp. 237-254 .
- Razali, A. (2001) *Public Housing in Malaysia: Policy and Practice (Perumahan Awam Di Malaysia: Dasar dan Amalan)*, Kuala Lumpur: Utusan Publication and Distribution Sdn Bhd.
- Redclift, M. R. (2005) *Sustainable Development (1987 – 2005) – An Oxymoron comes of age*, King's College, London, Vol. 12, No. 25, pp. 65-84.
- Reichardt, C. S. & Cook, T. D. (1979) "Beyond Qualitative versus Quantitative Methods", in Cook, T. D. & Reichardt, C. S. (Eds.) *Qualitative and Quantitative Methods in Evaluation Research*. Beverly Hills, Calif.: Sage, pp. 7-32.
- Reiss, A. J. (1984) "Consequences of Compliance and Deterrence Models of Law Enforcement for the Exercise of Police Discretion", *Law and contemporary problems*, Vol. 47, pp. 91-102.
- Royal Institute of British Architects (RIBA) (2006) *Improving the Building Regulations*, London: RIBA Practice Policy Paper.
- Richardson, H. J. (2003) "U.S. Hegemony, Race, and Oil in Deciding United Nations Security Council Resolution 1441 on Iraq", *Temple International and Comparative Law Journal*, 27
- Robbins, E. (1989) "Culture, Policy and Production: Making LowCost Housing in Sri Lanka", in Low, S and Chambers, E. (Eds.) 1989 *Housing, Culture and Design, a Comparative Perspective*, Philadelphia: University of Pennsylvania Press.
- Robert, B. & Klenow, D. J. (1983) "Response of the Elderly to Disaster: An Age- stratified Analysis", *International Journal of Aging and Human Development*, Vol. 16, pp. 283-296.
- Roberts, J. A., Lapidus, R. A., & Chonko, L. B. (1997) "Salesperson and Stress: The Moderating Role of Locus of Control on Work Stressors and Felt Stress", *Journal of Marketing Theory and Practice*, Vol. 5, No. 3, pp. 93-108.
- Rochlin, G. I. (1988) *Technology and Adaptive Hierarchy: Formal and Informal Organisation for Flight Operations in the US Navy*, Berkeley, CA: Institute of Governmental Studies, University of California.
- Ronan, R. and Johnston, D. (2006) *Promoting Community Resilience in Disasters The Role for Schools, Youth, and Families, Promoting Community Resilience in Disasters*, US: Springer.
- Roosli, R. (2005) *The Effectiveness of Housing Development Process by the City Council in Penang*, unpublished thesis, School of Housing Building & Planning, Science University of Malaysia.
- Rosen, R. (1989) "The Inside Counsel Movement, Professional Judgement and Organisational Representation", *Indiana Law Journal*, Vol. 64, pp. 479.
- Rossi, R. H., Wright, J. D. & Burdin, E. W. (1982) *Natural Hazards and Public Choice The State and Local Politics of Hazard Mitigataon*, New York: Academic Press.

- Rubin, C. B. (1981) *Long Term Recovery from Natural Disasters: A Comparative Analysis of Six Local Experiences*, Academy for Contemporary Problems, Washington.
- Rubin, H. J. & Rubin, I. S. (1995) *Qualitative Interviewing: The Art of Hearing Data*, CA: Sage Publications, Thousand Oaks.
- Rubin, H. J. & Rubin I. S. (2005) *Qualitative Interviewing: The Art of Hearing Data* (2<sup>nd</sup> Edn.) London: Sage Publication.
- Ruchelman, L. I. (1988) "Natural Hazard Mitigation and Development: An Exploration of the Roles of the Public and Private Sectors", pp. 53-66 in *Managing Disaster: Strategies and Policy Perspectives* (Ed.) Comfort, L. K., Durham, North Carolina: Duke University Press.
- Rytina, S. (2000) Is occupational mobility declining in the United States? *Social Forces*, Vol. 78, pp. 1227-1276.
- Sally, D. (1995) "Conversation and Cooperation in Social Dilemmas: A Meta-Analysis of Experiments from 1958-1992", *Rationality and Society*, Vol. 7, pp. 58-92.
- Sampson, P. (1972) "Qualitative Research and Motivation Research", in Worcester, R.M. (Ed.) *Consumer Market Research Handbook*, McGraw-Hill, London, pp. 7-27, Ghauri, P. (2005) *Designing and Conducting Case Studies*, Essex: Pearson Education Limited.
- Sandelowski, M. (1986) "The Problem of Rigor in Qualitative Research", *Advances in Nursing Science*, Vol. 8, No. 3, pp. 27-37.
- Sarji, A. (1996) *Civil Service Reforms – Toward Malaysia's Vision 2020*, Kuala Lumpur: Pelanduk Publications.
- Sauders, G. (2004) "Dilemmas and Challenges for the Shelter Sector: Lessons Learned from the Sphere Revision Process", *Overseas Development Institute (ODI)*, Vol. 28, No. 2, pp. 160 – 175.
- Scanlon, T. J. (1988) "Disaster's Little Known Pioneer - Canada's Samuel Henry Prince", *International Journal of Mass Emergencies and Disasters*, Vol. 6, No. 3, , pp. 213-232.
- Scanlon, T. J. (1999) "Introduction: Symposium on Drabek's Human System Responses to Disaster", *International Journal of Mass Emergencies and Disasters*, Vol. 17, pp. 207-211.
- Scanlon, T. J. & Handmer, J. (2001) "The Halifax Explosion and the Port Arthur Massacre: Testing Samuel Henry Prince's Ideas", *Mass Emergencies and Disasters*, Vol. 19, No. 2, pp. 181-208.
- Schelling, T. C. (1978) *Micromotives & Macrobbehaviour*, New York: W.W. Norton.
- Schoenberger, V.M. (2002) *Emergency Communications: The Quest for Interoperability in the United States and Europe*, John F. Kennedy School of Government Harvard University Faculty Research Working Papers Series.
- Scholz, J. (1984a) Voluntary Compliance and Regulatory Enforcement", *Law and Policy*, Vol. 6, pp. 385-405.
- Scholz, J. (1984b) "Cooperation, Deterrence and the Ecology of Regulatory Enforcement", *Law & Soc.*, Vol. 18, No. 179.
- Schulitz, P. W. & Oskamp, S. (1996) "Efford as a Moderator of the Attitude Behaviour Relationship: General Environmental Concern and Recycling", *Sociology Psychology Quarterly*, Vol. 59, No. 4, pp. 375-383.

- Schwab, J., Kenneth C. T., Eadie, C., Deyle, R. E., & Smith, R. A. (1998) *Planning for Post-Disaster Recovery and Reconstruction*, Chicago, IL: American Planning Association, Planning Advisory Service Report (483/484).
- Schwarzer, R., Hahn, A. & Schroder, H. (1994) "Social Integration and Social Support in a Life Crisis: Effects of Macrosocial Change in East Germany", *American Journal of Community Psychology*, Vol. 22, pp.685-706.
- Scott, W. (1995) *Institutions and Organisations*, London: Sage.
- Seiber, S. D. (1981) *Fatal Remedies*, New York: Plenum Press.
- Seybolt, J.W. (1976) "Work Satisfaction as a Function of the Person-Environment Interaction", *Journal of Organisational Behaviour and Human Performance*, Vol.17, 66-75.
- Shaan, A.T. (1980) "Recruitment and Selection in the Malaysian Public Service", in Raksataya, A. & Siedentopf, H. (Eds.) *Asia Civil Services Technical Papers*, Vol. 2 (Kuala Lumpur APDAC. 1980), pp. 29.
- Shaluf, I. M., Fakhrul-Razi, A. & Aini, M. S. (2003a) "A review of Disaster and Crisis", *International Journal of Disaster Prevention and Management*, Vol. 12, No. 1, pp. 24-32.
- Shaluf, I. M., Fakhrul-Razi, A. (2003b) "Major Hazard Control: the Malaysian Experience", *Disaster Prevention and Management*, pp. 420-427.
- Shaluf, I. M. & Fakhrul-Razi, A. (2006) "Technological Disaster Prevention – the Case of Malaysia", *Disaster Prevention and Management*, Emerald Group Publishing, Vol. 15, No. 5, pp. 783-792.
- Shearing, C. (1993) "A Constitutive Conception of Regulation", in Grabosky, P. and Braithwaite, J. (Eds.) *Business Regulation and Australia's Future*, Canberra: Australian Institute of Criminology, pp. 67- 79.
- Shelter Centre (2007) *Shelter Centre Annual Report* [Online] <http://www.sheltercentre.org/node/4421> (Accessed: 21 September 2008).
- Shenton, A.K. & Dixon, P. (2003) "Models of Young People's Information Seeking", *Journal of Librarianship and Information Science*, Vol. 35, No. 1, pp. 5-22.
- Shiva, V. (1989) *Staying Alive: Women, Ecology and Development*, London: Zed Books.
- Sieber, S. D. (1973) "The Integration of Fieldwork and Survey Methods", *American Journal of Sociology*, Vol. 78, pp. 1335-1359.
- Shuid, S. (2006) *Department of Urban and Regional Planning*, Kuliyah of Architecture and Environmental Design, International Islamic University Malaysia.
- Siddiquee, N. A. (2006) "Public Management Reform in Malaysia: Recent Initiatives and Experiences", *International Journal of Public Sector Management*, Vol. 19, No. 4, pp. 339-58.
- Siddiquee, N. A. (2007a) "Service Delivery Innovations and Governance: the Malaysian Experience", *Transforming Government: People, Process and Policy*, Vol. 2, No. 3, pp. 194-213.
- Siddiquee, N. A. (2007b) *Public Service Innovations Policy Transfer and Governance in the Asia-Pacific Region: The Malaysian Experience*, JOAAG, Vol. 2. No. 1.
- Sieber, S. D. (1973) "The Integration of Fieldwork and Survey Methods", *American Journal of Sociology*, Vol. 78, pg. 1335-1359.
- Sigler, J. A. & Murphy, J. E. (1988) *Interactiv Corporate Compliance*, New York: Quorum Books.

- Silverman, D. (1997) *Qualitative Research: Theory, Method and Practise* (Ed.) London: SAGE Pubcs.
- Sims, J. H. & Baumann, D. D. (1972) "The Tornado Threat: Coping Styles of the North and South", *Science*, Vol. 176, No. 4042, pp. 1386–92.
- Simon, H. A. (1997) *Models of Bounded Rationality: Empirically Grounded Economic Reason*, Cambridge, Mass.: MIT Press.
- Simon, H. A. (1999) "The Potlatch Between Political Science and Economics", in Alt, J., Levi, M. & Ostrom, E. (Eds.) *Competition and Cooperation: Conversations with Nobelists about Economics and Political Science*, New York: Russell Sage Foundation.
- Simpson, G. R. (2005) "Just in time: in year of disasters, experts bring order to chaos of relief; logistics pros lend know-how to volunteer operations; leasing a fleet of forklifts; bottlenecks on the tarmac", *Wall Street Journal (Eastern Edn.)*.
- Sinha, D. K. (1992) *Natural Disaster Reduction for the Nineties: Perspective, Aspects and Strategies*, Calcutta: International Journal Services.
- Sitkin, S. & Beis, R. (1994) "The Legalisation of Organisations: A Multi-Theoretical Perspective", in Sitkin, S & Beis, R. (Eds.) *The Legalistic Organisation*, Thousand Oaks, Sage.
- Slovic, P., H. K. & White, G. F. (1974) "Decision Processes, Rationality, and Adjustment to Natural Hazards", pp 187-205 in *Natural Hazards: Local, National, Global*, New York: Oxford University Press.
- Slovic, P. H. K. (1987) 'Perceptions of Risk', *Science*, Vol. 236, No. 4799, pp. 280–85.
- Smith, A. (1759) *The Theory of Moral Sentiments*, London: A. Millar [Online]  
<http://www.adamsmith.org/smith/tms/tms-index.htm> (Accessed: 3 December 2007).
- Smith, D. (1978) *History of Firefighting in America: 300 Years of Courage*. N.Y.: Dial Press.
- Smith, D. D. (1981) *Urbanisation, Housing, and the Development Process*, London : Croom Helm.
- Smith, E. & Mackie, D. M (1995) *Social Psychology*, New York: Worth Publisher.
- Smith, K. (1996) *Environmental Hazards—Assessing Risk and Reducing Disaster* (2<sup>nd</sup> Edn.) London and New York: Routledge.
- Smith, M., & Pettit, I. (1983) "Bayesian Model Comparisons in the Presence of Outliers", *Bull. Int. Statist. Inst.* Vol. 50, No. 1, pp. 292–306.
- Smith, T. (1979) "Post Disaster Consensus and Conflict in a Traditional Society: The 1970 Avalanche of Yungay, Peru", *Mass Emergencies*, Vol. 4, pp. 39-52.
- Soh, C.H. (1998) *Emergency Response Planning in the Coming Millennium*, Proceedings, Emergency Response Planning In the Coming Millennium, Kuala Lumpur.
- Solecki, W. D. (1994) "Looking Through the Post Disaster Policy Window", *Environmental Management*, Vol. 18, No. 4, pp. 587-95.
- Sorokin, P. A. (1942) *Man and Society in Calamity, Summary Copyright*, Robert Wayne Atkins, P.E.
- Spence, R. (2009) *Estimating Shaking-Induced Casualties and Building Damage for Global Earthquake Events*, Final Technical Report, Cambridge Architectural Research Ltd.
- Sphere Project (2004) *The Humanitarian Charter and Minimum Standards in Disaster Response, Steering Committee for Humanitarian Response* (2001 Edn.) Oxford, UK: Oxfam Publishing.

- Stahlberg, D. & Frey, D. (1992) "Attitudes I: Structure, Measurement and Functions", in Hewstone, M., Stroebe, W., Cadot, J.P & Stephenson, G.M. (Eds.) *Introduction to Social Psychology*, Oxford: Blackwell.
- Stallings, R. (1971) *Communications in Natural Disasters*, Disaster Research Center Report Series No. 10, Disaster Research Center, Newark, Del.
- Stallings, R. (1978) "The Structural Patterns of Four types of Organisations in Disaster", in Quarantelli, E. L. (Ed.) *Disasters: Theory and Research*. California: Sage.
- Stallings, R. (1987) "Organizational Change and the Sociology of Disaster", in Dynes, R., De Marchi, B. & Pelanda, C. (Eds.) *Sociology of Disasters*: Milano, Italy: Franco Angeli.
- Stallings, R. (1995) *Promoting Risk: Constructing the Earthquake Threat*, New York: Aldin De Gruyer.
- Stallings, R. (2002) *Method of Disaster Research*, Disaster Research Committee on Disaster, US: Xlibris Corp.
- Stoel, L. (2002) "Retail Cooperatives: Group Size, Group Identification, Communication Frequency and Relationship Effectiveness", *International Journal of Retail & Distribution Management*, Vol. 30, No. 1, pp. 51-60.
- Strydom, P. (2002) *Risk, environment and society*, Buckingham: Open University Press.
- Susman, P., O'Keefe, P., Wisner, B. (1984) *Global Disaster: A Radical Interpretation*, Hewitt, pp. 264-283.
- Sutherland, E. (1983) *White Collar Crime*, New Haven: Yale University Press.
- Sutinen, J. G., Alison, R., & Gauvin, J. R. (1990) "Measuring and Explaining Noncompliance in Federally Managed Fisheries", *Ocean Development and International Law (ODI)*, Vol. 21, pp. 335-372.
- Svetlana, N. B. (1998) *Lessons Learned Overtime*, Earthquake Engineering Research Institute, Oakland, California.
- Taib, M. & Mat, J. (1992) "Administrative Reforms in Malaysia – Toward Enhancing Public Service Performance", *Governance*, Vol. 5, No. 4, pp. 423-437.
- Tan, Andrew, A. L. (2001) *Project Management in Malaysia – A Comprehensive Approach for Auccessful Management of Property Development Projects from Inception until Completion*, Kuala Lumpur .
- Tapp, J. L. & Kohlberg, L. (1977) "Developing Senses of Law and Legal Justice", in Tapp, J. L., Levine, F. J. (Eds.) *Law, Justice and the Individual in Society: Psychological and Legal Issues*, Holt, New York, NY: Rinehart & Winston.
- Taylor, J. B., Louis, A. Z. & William H. K. (1970) *Tornado: A Community Responds to Disaster*, Seattle, Washington: University of Washington Press.
- Taylor, B. & Heath, A. (1996) *The Use of Double-sided Items in Scale Construction*, Centre for Research into Elections and Social Trends, Working Paper no. 37 [Online] <http://www.crest.ox.ac.uk/p37.htm> (Accessed: 21 January 2007).
- Telford, J. & Cosgrave, J. (2006) *Joint Evaluation of the International Response to the Indian Ocean Tsunami: Synthesis Report*, London: Tsunami Evaluation Coalition (TEC).
- Teubner, G. (1998) "Juridification: Concepts, Aspects, Limits, Solutions", in Baldwin, R., Scott, C & Hood, C. (Eds.) *A Reader on Regulation*. Oxford: Oxford University Press, pp. 389- 440.



- Thompson, J. D. & Hawkes, R. W. (1962) "Disaster, Community Organisation and Administrative Process", in Baker, G. W. & Chapman, D. W. (Eds.) *Man and Society in Disaster*, New York: Basic Books, pp. 268-300.
- Tierney, K.J. (1993) *Disaster Preparedness and Response: Research Findings and Guidance from the Social Science Literature*, Preliminary Paper No. 193, Disaster Research Center, University of Delaware, Newark [Online] <http://dspace.udel.edu:8080/dspace/handle/19716/579> (Accessed: 13 February 2007).
- Tierney, K.J., Lindell, M. K. & Perry, R. W. (2001) *Facing the Unexpected: Disaster Preparedness and Response in the United States*, Washington DC: Joseph Henry Press.
- Tobin, G. (1999) "Sustainability and Community Resilience: the Holy Grail of Hazards Planning?" *Environmental Hazards*, Vol. 1, pp. 13-25.
- Tobriner, S. (2000) *Wooden architecture and earthquakes in Turkey: a reconnaissance report and commentary on the performance of wooden structures in the Turkish earthquakes of 17 August and 12 November 1999*, In: International conference on the seismic performance of traditional buildings, Istanbul, Turkey.
- Toft, B. & Reynolds, S. (1999) *Learning from Disasters: A Management Approach*, Leicester: Perpetuity Press.
- Torjman, S. (2005) *What is Policy?*, Canada: Caledon Institute of Social Policy [Online] <http://www.csgv.ca/counselor/assets/PublicPolicy.pdf> (Accessed: 21 March 2009).
- Triandis, H. C., Adamopoulos, J. & Brinbery, D. (1986) "Perspectives and issues in the Study of Attitudes", in Jones, R.L (Ed.) *Attitudes and Attitude Change In Special Education: Theory and Practice*. Virginia: The Council for Exceptional Children (CEC).
- Trochim, W. (1982) "Methodologically-Based Discrepancies in Compensatory Education Evaluations", *Evaluation Review*, Vol. 6, No. 4, pp. 443-480.
- Trow, M. (1957) "Comment on Participant Observation and Interviewing: A Comparison", *Human Organisation*, Vol. 16, pp. 33-35.
- Turner, J. F. C. (1967) "Barriers and channels for housing development in modernizing countries", *Journal, American Institute of Planners*, Vol. 32, pp. 167-181.
- Turner, J. F. C. (1972) "Housing as a Verb", in Turner, J. & Fichter, R. (Eds.) *Freedom to Build: Dweller Control of the Housing Process*, New York: Macmillan Company, pp. 148-175.
- Turner, J. F. C. (1977) *Housing by People: Towards Autonomy in Building Environments*, New York: Pantheon Books.
- Turner, R. H., Nigg, J. M., & Paz, D. H. (1986) *Waiting for Disaster: Earthquake Watch in California*, Los Angeles : University of California Press.
- Tutty, L. M., Rothery, M., & Grinnell, R. M., Jr. (1996) *Qualitative Research for Social Workers*, Boston: Allyn & Bacon.
- Tyler, T. (1990) *Why People Obey the Law*, New Haven: Yale University Press.
- Udy, S. Jr. (1992) "Social organization", in: Borgatta, E. F. and Borgatta, M. L. (Eds.) *Encyclopedia of sociology*, New York: Macmillan, Vol. 4, pp. 970-974.
- UNA-USA: Policy Studies Panel on International Disaster (1977) *Acts of Nature Acts of Man: the Global Response to Natural Disasters*, UNA-USA, New York, NY.

United Kingdom (UK) (2005) *National Report and Information on Disaster Reduction*, Submitted to the World Conference on Disaster Reduction, Kobe, Hyogo, Japan, 18-22 January [Online] <http://www.unisdr.org/wcdr/preparatory-process/national-reports.htm> (Accessed: 12 December 2007).

United Nations Development Programme (UNDP) (2004) *Human Development Report*, Beyond scarcity: Power, poverty and the global water crisis [Online] <http://hdr.undp.org/en/media/HDR06-complete.pdf> (Accessed: 3 March 2007).

United Nations Educational, Scientific and Cultural Organisation (UNESCO) (1997) *People* [Online] [www.unesco.org](http://www.unesco.org) (Accessed: 20 October 2007).

United Nation-HABITAT (1996) *Istanbul Declaration on Human Settlements, the Habitat Agenda* [Online] [http://www.unhabitat.org/downloads/docs/1176\\_6455\\_The\\_Habitat\\_Agenda.pdf](http://www.unhabitat.org/downloads/docs/1176_6455_The_Habitat_Agenda.pdf) (Accessed: 2 February 2007).

United Nation-HABITAT (1999) *Housing Policy and Development Section (HPDS)* [Online] <http://www.unhabitat.org/programmes/housingpolicy/> (Accessed: 4 January 2007).

United Nation-HABITAT (2001a) *Cities in a Global World: Global Report on Human Settlements*, UK: Earthscan Publications Ltd.

United Nation-HABITAT (2001b) *Istanbul + 5: The United Nations Special Session of the General Assembly for an Overall Review and Appraisal of the Implementation of the Habitat Agenda*, New York [Online] <http://ww2.unhabitat.org/Istanbul+5/brochure.pdf> (Accessed: 1 December 2009).

United Nation-HABITAT (2002) *Housing Rights Legislation Report*, Nairobi: Centre on Housing Rights and Evictions (COHRE).

United Nation-HABITAT (2003) *International Instruments on Housing Rights*, Nairobi: Centre on Housing Rights and Evictions (COHRE).

United Nation-HABITAT (2009) *Final Recommendations*, First Iraqi National Housing Conference, Al-Rashid Hotel, Baghdad, 14-15 January.

United Nations High Commissioner for Refugees (UNHCR) (1991) *General Comment No. 4: The Right to Adequate Housing [Art. 11 (1) of the Covenant]*, UN Committee on Economic, Social and Cultural Rights (CESCR) [Online] <http://www.unhcr.org/refworld/type,GENERAL,47a7079a1,0.html> (Accessed: 22 Feb April 2007).

United Nations High Commissioner for Refugees (UNHCR) (2000a) *Handbook for Emergencies*, (2<sup>nd</sup> Edn.) Geneva: United Nations High Commissioner for Refugees.

United Nations High Commissioner for Refugees (UNHCR) (2000b) *Tools and Resources for Post Disaster Relief*, Asia Disaster Preparedness Center (ADPC) Switzerland.

United Nation Commission on Human Rights (UNHCR) (2004) *Adequate Housing as a Component of the Right to an Adequate Standard of Living*, Report by the Special Rapporteur, Miloon Kothari, Mission to Kenya, E/CN.4/2005/48.

United Nations High Commissioner for Refugees (UNHCR) (2007) *Handbook for Emergencies*, Third Edition, Switzerland (new Edn.).

United Nations International Strategy for Disaster Reduction (UNISDR) (1994) *Yokohama Strategy and Plan of Action for a safer world: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation*, Resolution Adopted by Delegates of the World Conference on Natural Disaster Reduction, Yokohama, Japan, 23-27 May.

United Nations International Strategy for Disaster Reduction (UNISDR) (2005) *Hyogo Declaration*, Resolution Adopted by Delegates of the World Conference on Disaster Reduction, Kobe, Hyogo, Japan, 18-22 January.

United Nations International Strategy for Disaster Reduction (UNISDR) (2008) *Annual report 2007*, the secretariat of the International Strategy for Disaster Reduction (UN/ISDR).

United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA) (2006) *Exploring key changes and developments in post-disaster settlement, shelter and housing, 1982 – 2006*, Scoping study to inform the revision of 'Shelter after Disaster: Guidelines for Assistance'.

United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA) (2007) *Best Practices in Humanitarian Information Management and Exchange*, Palais des Nations Geneva, Switzerland [Online] <http://www.humanitarianinfo.org/> (Accessed: 8 August 2008).

United States Government Accountability Office (USGAO) (2006) *Factors for Future Success and Issues to Consider for Organisational Placement*, Statement of William O. Jenkins, Jr., Director Homeland Security and Justice Issues, GAO-06-746T.

Uvin, P and Mironko, C. (2003) *Western and Local Approaches to Justice in Rwanda*, Global Governance, Vol. 9 [Online] <http://jr3tv3gd5w.scholar.serialssolutions.com/?sid=google&auinit=P&aulast=Uvin&atitle=Western+and+Local+Approaches+to+Justice+in+Rwanda> (Accessed: 6 December 2009).

Van der Krabben, E. (1995) *Urban Dynamics: A Real Estate Perspective: An Institutional Analysis of the Production of the Built Environment*, Center for Economic Research, Tilburg University.

Van den Eyde, J. & Venio, A. (1999) "Coping with Disastrous Events: An Empowerment Model of Community Healing", in Gist, R., Lubin, B. (Eds.) *Response to Disaster*, Philadelphia, PA: Taylor & Francis.

Varley, A. (1994) *Disasters, Development and Environment*, New York, NY: John Wiley & Sons.

Vidich, A. & Shaporo, G. (1955) "A Comparison of Participant Observation and Survey Data", *American Sociological Review*.

Walker, D. (2008) *Community Development Approach in Aceh Reconstruction, Reflecting on Lesson learned for Yogyakarta*, Urban and Regional Development Institute (URDI).

Waltz, C. F., Strickland, O. A. & Lenz, E. R. (1991) *Measurement in nursing research*, (2<sup>nd</sup> Edn) Philadelphia: F.A. Davis Co.

Wang, Z. (2008) *A preliminary report on the Great Wenchuan Earthquake, Earthquake Engineering and Engineering Vibration*, 7-2, Institute of Engineering Mechanics (IEM), China Earthquake Administration

Warren, A. (2001) "Sources of Literature on Data Protection and Human Rights", *Journal of Information, Law & Technology* [Online] <http://www2.warwick.ac.uk/fac/> (Accessed: 15 March 2006).

Wayne, G. & Scholz, J. T. (1989) *A Behavioural Approach to Compliance: OSHA Enforcement's Impact on Workplace Accidents*, NBER Working Papers 2813, National Bureau of Economic Research, Inc.

World Economic Forum (WEF) (2007) *The Global Competitiveness Report*.

Weichhselgartner, J. (2001) "Disaster Mitigation: the Concept of Vulnerability Revisited", *Disaster Prevention and Management*, Vol. 10, pp. 85-94.

Weil, D. (1992) "Building Safety: The Role of Construction Unions in the Enforcement of OSHA", *Journal of Labor Research, Business Source Premier*, Vol. 13, No. 1.

- Weimer, D. L. & William, H. R. (1995) "The Political Economy of Transformation: Liberalisation and Property Rights", in Banks, J. and Hanushek, E. (Eds.) *Modern Political Economy: Old Topics, New Directions*, New York: Cambridge University Press, pp. 80–107.
- Weinberg, A. M. (1972) "Science and Trans-science", *Minerva*, Vol. 10, pp. 209–222.
- Weinberg, A. M. (1988) "Risk assessment, regulation, and the limits of science", *Basic Life Sci*, Oak Ridge Associated Universities, Tennessee, Vol. 43, pp. 121-128.
- Weissman, E. (1960) "Mutual aid in low-cost housing", *Annals of the American Academy of Political and Social Science*, Vol. 329, pp. 107–114.
- Weldelibanos, F. (1993) *A Survey of Earthquake Mitigation Strategies & Building Principles for Small Traditional Dwellings*, McGill University.
- Wenger, D. E., James, T. F. & Faupel, C. F. (1980) *Disaster Beliefs and Emergency Planning*, Newark, Delaware: Disaster Research Center, University of Delaware.
- Westrum, R. (1992) "Cultures with Requisite Imagination", in Wise, J.A., Hopkin, V.D., Stager, P. (Eds) *Verification and Validation of Complex Systems: Human Factors Issues*, Springer-Verlag, Berlin, pp. 401-16.
- White, G. (1996) *Emerging issues in Global Environmental Policy*, *Ambio*, Vol. 25, pp. 58-60
- Whyte (1991) *Street Corner Society*, Chicago: Chicory University Press.
- Wickham, M and Woods, M. (2005) *Reflecting on the Strategic Use of CAQDAS to Manage and Report on the Qualitative Research Process*, the Qualitative Report, 10: 687-702 [Online]  
[www.nova.edu/ssss/QR/QR10-4/wickham.pdf](http://www.nova.edu/ssss/QR/QR10-4/wickham.pdf) (Accessed: 28 November 2009).
- Wildermuth, B. M. (1993) "Post-Positivist Research: Two examples of Methodological Pluralism", *Library Quarterly*, Vol. 63, No. 4, pp. 450-68.
- Wilkins, R. G. and Jacob, R. (2006) *International Law and the Right to Life*, Symposium: The Corporation and the Human Person - Law and Culture [Online]  
[http://heinonline.org/HOL/Page?handle=hein.journals/avemar4&div=11&g\\_sent=1&collection=journals](http://heinonline.org/HOL/Page?handle=hein.journals/avemar4&div=11&g_sent=1&collection=journals)  
 (Accessed: 6 December.2009).
- Williams, M. (1996) *Social Research Today*, London: UCL Press Limited.
- Williams, G., Batho, S. & Russell, L. (2000) "Responding To Urban Crisis: The Emergency Planning Response to the Bombing of Manchester City Centre", *Cities*, Vol. 17, No. 4, pp. 293–304.
- Wilson, J. (1999) "The Inventory's Legacy for the Next Generation", *International Journal of Mass Emergencies and Disasters*, Vol. 17 pp.217-22.
- Winslow, W., Honein, G., & Elzubeir, M. (2002) "Seeking Emirati women's voices: The use of Focus Groups with an Arab Population", *Qualitative Health Research*, Vol. 12, pp. 566-575.
- Wisner, B. And Adams, J. (2002) *Environmental health in emergencies and disasters: a practical guide*, World Health Organization
- Wisner, B., Cannon, T. & Davis, I. (2004) *At Risk - Natural Hazards, People's Vulnerability and Disasters*. Wiltshire: Routledge.
- Wolensky, R. P. & Miller, E. (1981) "The Everyday versus the Disaster Role of Local Officials - Citizen and Official Definitions", *Urban Affairs Quarterly*, Vol. 16, pp. 483-504.

- Wolensky, R. P. (1983) "Power Structure and Group Mobilization Following Disaster : A Case Study", *Social Science Quarterly*, Vol. 64, No. 1, pp. 97-110.
- Wolensky, R. P. (1990) "Local Government's Problem with Disaster Management: A Literature Review and Structural Analysis", *Policy Studies Review*, Vol. 9, No. 4, pp. 703-25.
- World Bank (2000) *Risks and Reconstruction: Experiences of Resettlers and Refugees*, Cernea, M. M. (Ed.) [Online] <http://www.worldbank.org/> (Accessed: 21 July 2007).
- World Bank (2009a) *World Bank Report* [Online] <http://info.worldbank.org/governance/wgi/resources.htm> (Accessed: 1 March 2009).
- World Bank (2009b) *ASEAN-UN-World Bank Set to Collaborate to Reduce Disaster Risk*, World Bank Report [Online] <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/0> (Accessed: 11 December 2009).
- World Disaster Report (2002) *Focus on Reducing Risk, International Red Cross and Red Crescent (IRCRC)* [Online] <http://www.ifrc.org/publicat/wdr2002/intro.asp> (Accessed: 24 November 2008).
- World Health Organisation (WHO) (1999) *Community emergency preparedness: a manual for managers and policy makers*, Geneva.
- World Health Organisation (WHO) (2005) *Environmental Health Country Profile of Malaysia*, World Health Organisation Regional Office for the Western Pacific.
- World Health Organisation (WHO) (2005) *Malaysia, Environmental Health Country Profile* [Online] <http://www.wpro.who.int/NR> (Accessed: 13 January 2007).
- Wright, J. D. & Rossi, P. H. (1981) *The Politics of Natural Disaster: State and Local Elites*, in *Social Science and Natural Hazards*, Cambridge, MA: ABT Associates Inc.
- Wunsch & Olowu, D. (1995) *The Failure of the Centralised State*, San Francisco: ICS Press.
- Xiulan, Z. (2008) *Lessons from Wenchuan Mega Earthquake: A Social Development Perspective*, proceeding, International Day for Disaster Reduction New York.
- Yahya, R. (1998) *Organisational Factors that Contribute to Teachers' Stress*, unpublished MBA Thesis, Penang: Universiti Sains Malaysia.
- Yates, D. (1977) *The Ungovernable City: The Politics of Urban Problems and Policy Making*, Cambridge, MA, M.I.T.
- Yates, S., Axsom, D., & Tiedeman, K. (1999) "The Help Seeking Process for Distress After Disasters", in Gist, R., Lubin, B. (Eds.) *Response to Disaster*, Philadelphia, PA: Taylor & Francis.
- Yin, R. K. (1984) *Case Study Research: Design and Methods* (1<sup>st</sup> Edn.) Beverly Hills CA: Sage.
- Yin, R. K. (1989) *Case Study Research: Design and Methods* (Re. Edn.) Newbury Park, Sage.
- Yin, R. K. (1993) *Application of Case Study Research*, Newbury Park, CA: Sage.
- Yin, R. K. (1994) *Case Study Research: Design and Methods* (2<sup>nd</sup> Edn.) Thousand Oaks, CA: Sage.
- Young, R. (1999) *The Effectiveness of International Environmental Regimes*, Cambridge, MA: MIT Press.
- Young, R. (2002) *The Institutional Dimensions of Environmental Change, Fit, Interplay, and Scale*, Cambridge, MA: MIT Press.

